Biman Bagchi

List of Publications by Year in Descending Order

398 papers	14,628 citations	59 h-index	104 g-index
408 ext. papers	15,373 ext. citations	4.5 avg, IF	6.96 L-index

#	Paper	IF	Citations
398	Inhomogeneous phase separation kinetics in liquid binary mixtures: Sensitivity to initial local composition *Journal of the Indian Chemical Society*, **2022**, 99, 100346		
397	Tug-of-War between Internal and External Frictions and Viscosity Dependence of Rate in Biological Reactions.. *Physical Review Letters*, **2022**, 128, 108101	7.4	4
396	Non-Markovian rate theory on a multidimensional reaction surface: Complex interplay between enhanced configuration space and memory.. *Journal of Chemical Physics*, **2022**, 156, 134101	3.9	1
395	Rigid Cations Induce Enhancement of Microheterogeneity and Exhibit Anomalous Ion Diffusion in Water-Ethanol Mixtures. *Journal of Physical Chemistry B*, **2021**, 125, 12274-12291	3.4	1
394	Stochastic formulation of multiwave pandemic: decomposition of growth into inherent susceptibility and external infectivity distributions. *Journal of Chemical Sciences*, **2021**, 133, 118	1.8	
393	Structural Stability of Insulin Oligomers and Protein Association-Dissociation Processes: Free Energy Landscape and Universal Role of Water. *Journal of Physical Chemistry B*, **2021**, 125, 11793-11811	3.4	4
392	An exact solution in the theory of fluorescence resonance energy transfer with vibrational relaxation. *Journal of Chemical Physics*, **2021**, 154, 134104	3.9	2
391	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	2.8	1
390	Unfolding of Dynamical Events in the Early Stage of Insulin Dimer Dissociation. *Journal of Physical Chemistry B*, **2021**, 125, 7958-7966	3.4	2
389	Anomalous dielectric response of nanoconfined water. *Journal of Chemical Physics*, **2021**, 154, 044501	3.9	11
388	Rate of Insulin Dimer Dissociation: Interplay between Memory Effects and Higher Dimensionality. *Journal of Physical Chemistry B*, **2021**, 125, 9678-9691	3.4	6
387	Comment on "investigation of dielectric constants of water in a nano-confined pore" by H. Zhu, F. Yang, Y. Zhu, A. Li, W. He, J. Huang and G. Li, , 2020, , 8628.. *RSC Advances*, **2021**, 11, 5179-5181	3.7	1
386	Quantum Coherence and Its Signatures in Extended Quantum Systems. *Journal of Physical Chemistry B*, **2020**, 124, 4551-4563	3.4	6
385	How different are the dynamics of nanoconfined water?. *Journal of Chemical Physics*, **2020**, 152, 224707	3.9	9
384	Entropic Origin of the Attenuated Width of the Ice Water Interface. *Journal of Physical Chemistry C*, **2020**, 124, 7334-7340	3.8	5
383	Ion pair correlations due to interference between solvent polarizations induced in water. *Journal of Chemical Physics*, **2020**, 152, 064501	3.9	1
382	Rotation of small diatomics in water-ethanol mixture: Multiple breakdowns of hydrodynamic predictions. *Journal of Chemical Physics*, **2020**, 153, 014504	3.9	1

381	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	11.5	13
380	Microscopic origin of breakdown of Stokes-Einstein relation in binary mixtures: Inherent structure analysis. *Journal of Chemical Physics*, **2020**, 152, 164507	3.9	5
379	Mathematical modeling and cellular automata simulation of infectious disease dynamics: Applications to the understanding of herd immunity. *Journal of Chemical Physics*, **2020**, 153, 114119	3.9	7
378	Study of entropy-diffusion relation in deterministic Hamiltonian systems through microscopic analysis. *Journal of Chemical Physics*, **2020**, 153, 184701	3.9	4
377	Water Layer at Hydrophobic Surface: Electrically Dead but Dynamically Alive?. *Nano Letters*, **2020**, 20, 8959-8964	11.5	14
376	Role of local order in anomalous ion diffusion: Interrogation through tetrahedral entropy of aqueous solvation shells. *Journal of Chemical Physics*, **2020**, 153, 154505	3.9	4
375	Fluctuation theory of immune response: A statistical mechanical approach to understand pathogen induced T-cell population dynamics. *Journal of Chemical Physics*, **2020**, 153, 045107	3.9	4
374	Non-linearity in dipolar solvation dynamics in water-ethanol mixture: Composition dependence of free energy landscape. *Journal of Chemical Physics*, **2019**, 151, 084502	3.9	4
373	Water in Carbon Nanotubes: Pronounced Anisotropy in Dielectric Dispersion and Its Microscopic Origin. *Journal of Physical Chemistry Letters*, **2019**, 10, 6287-6292	6.4	23
372	Unfolding Dynamics of Ubiquitin from Constant Force MD Simulation: Entropy-Enthalpy Interplay Shapes the Free-Energy Landscape. *Journal of Physical Chemistry B*, **2019**, 123, 1228-1236	3.4	5
371	Ions' motion in water. *Journal of Chemical Physics*, **2019**, 150, 190901	3.9	20
370	Effect of ethanol on insulin dimer dissociation. *Journal of Chemical Physics*, **2019**, 150, 084902	3.9	11
369	Three-stage phase separation kinetics in a model liquid binary mixture: A computational study. *Journal of Chemical Physics*, **2019**, 150, 144501	3.9	2
368	Delocalization and Quantum Entanglement in Physical Systems. *Journal of Physical Chemistry Letters*, **2019**, 10, 2037-2043	6.4	4
367	Mechanism of Solvent Control of Protein Dynamics. *Physical Review Letters*, **2019**, 122, 058101	7.4	19
366	Thermodynamic picture of vitrification of water through complex specific heat and entropy: A journey through "no man's land". *Journal of Chemical Physics*, **2019**, 150, 054502	3.9	22
365	Dynamics of linear molecules in water: Translation-rotation coupling in jump motion driven diffusion. *Journal of Chemical Physics*, **2019**, 151, 034301	3.9	5
364	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	3.8	2

363	Destabilization of Insulin Hexamer in Water-Ethanol Binary Mixture. *Journal of Physical Chemistry B*, **2019**, 123, 10365-10375	3.4	6
362	Altered polar character of nanoconfined liquid water. *Physical Review Research*, **2019**, 1,	3.9	10
361	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	3.9	4
360	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	3.9	7
359	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	3.4	25
358	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	3.4	26
357	Temperature effects on the hydrophobic force between two graphene-like surfaces in liquid water. *Journal of Chemical Sciences*, **2018**, 130, 1	1.8	2
356	Collective excitations and ultrafast dipolar solvation dynamics in water-ethanol binary mixture. *Journal of Chemical Physics*, **2018**, 148, 114506	3.9	5
355	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	3.9	7
354	Infrared spectroscopic study of super-critical water across the Widom line. *Chemical Physics Letters*, **2018**, 702, 96-101	2.5	6
353	Non-equilibrium solvation dynamics in water-DMSO binary mixture: Composition dependence of non-linear relaxation. *Journal of Chemical Physics*, **2018**, 149, 084501	3.9	9
352	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	3.9	4
351	Anomalous water dynamics at surfaces and interfaces: synergistic effects of confinement and surface interactions. *Journal of Physics Condensed Matter*, **2018**, 30, 013001	1.8	11
350	Onsager Reciprocal Relations **2018**, 23, 1073-1075		1
349	Effects of metastable phases on surface tension, nucleation, and the disappearance of polymorphs. *Journal of Chemical Physics*, **2018**, 149, 214704	3.9	7
348	Lars Onsager (1903 1976) **2018**, 23, 1061-1071		
347	Crucial role of fragmented and isolated defects in persistent relaxation of deeply supercooled water. *Journal of Chemical Physics*, **2018**, 149, 124504	3.9	40
346	DNA Solvation Dynamics. *Journal of Physical Chemistry B*, **2018**, 122, 11743-11761	3.4	10

345	Dynamics of a binary mixture of non-spherical molecules: Test of hydrodynamic predictions. *Journal of Chemical Physics*, **2018**, 149, 124508	3.9	5
344	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	3.9	17
343	Polymorph selection during crystallization of a model colloidal fluid with a free energy landscape containing a metastable solid. *Physical Review E*, **2018**, 98,	2.4	9
342	Enhancement of reaction rate in small-sized droplets: A combined analytical and simulation study. *Journal of Chemical Physics*, **2018**, 148, 244704	3.9	31
341	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	3.9	9
340	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	2.5	16
339	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	3.9	30
338	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	3.9	7
337	Protein Hydration Dynamics: Much Ado about Nothing?. *Journal of Physical Chemistry Letters*, **2017**, 8, 4878-4882	6.4	34
336	Environment-Assisted Quantum Coherence in Photosynthetic Complex. *Journal of Physical Chemistry Letters*, **2017**, 8, 5566-5572	6.4	13
335	Origin of diverse time scales in the protein hydration layer solvation dynamics: A simulation study. *Journal of Chemical Physics*, **2017**, 147, 154901	3.9	26
334	A mode-coupling theory analysis of the observed diffusion anomaly in aqueous polyatomic ions. *Journal of Chemical Physics*, **2017**, 147, 124502	3.9	6
333	Distinguishing dynamical features of water inside protein hydration layer: Distribution reveals what is hidden behind the average. *Journal of Chemical Physics*, **2017**, 147, 024901	3.9	26
332	Breakdown of universal Lindemann criterion in the melting of Lennard-Jones polydisperse solids. *Journal of Chemical Sciences*, **2017**, 129, 833-840	1.8	7
331	Temperature Dependence of Static and Dynamic Heterogeneities in a Water-Ethanol Binary Mixture and a Study of Enhanced, Short-Lived Fluctuations at Low Concentrations. *Journal of Physical Chemistry B*, **2016**, 120, 12568-12583	3.4	15
330	Untangling complex dynamics of biological water at protein-water interface. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 8355-7	11.5	17
329	Anomalous dimensionality dependence of diffusion in a rugged energy landscape: How pathological is one dimension?. *Journal of Chemical Physics*, **2016**, 144, 194106	3.9	9
328	Effects of dynamic disorder on exciton migration: Quantum diffusion, coherences, and energy transfer. *Journal of Chemical Physics*, **2016**, 145, 164907	3.9	18

327	Coupled jump rotational dynamics in aqueous nitrate solutions. *Journal of Chemical Physics*, **2016**, 145, 234502	3.9	21
326	Composition dependent non-ideality in aqueous binary mixtures as a signature of avoided spinodal decomposition. *Journal of Chemical Sciences*, **2015**, 127, 49-59	1.8	9
325	Orientational order as the origin of the long-range hydrophobic effect. *Journal of Chemical Physics*, **2015**, 142, 134505	3.9	14
324	Spatio-temporal correlations in aqueous systems: computational studies of static and dynamic heterogeneity by 2D-IR spectroscopy. *Faraday Discussions*, **2015**, 177, 313-28	3.6	7
323	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	0.9	
322	Mode coupling theory analysis of electrolyte solutions: Time dependent diffusion, intermediate scattering function, and ion solvation dynamics. *Journal of Chemical Physics*, **2015**, 142, 124502	3.9	7
321	Relationship between entropy and diffusion: A statistical mechanical derivation of Rosenfeld expression for a rugged energy landscape. *Journal of Chemical Physics*, **2015**, 143, 194110	3.9	26
320	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	1.8	2
319	Local and Global Dynamics: general discussion. *Faraday Discussions*, **2015**, 177, 381-403	3.6	
318	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, 5691-7	3.4	32
317	Fluctuating micro-heterogeneity in water-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	3.9	41
316	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	3.9	20
315	Correlation between thermodynamic anomalies and pathways of ice nucleation in supercooled water. *Journal of Chemical Physics*, **2014**, 140, 164503	3.9	14
314	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	3.9	27
313	Multidimensional free energy surface of unfolding of HP-36: microscopic origin of ruggedness. *Journal of Chemical Physics*, **2014**, 141, 135101	3.9	11
312	Diffusion on a rugged energy landscape with spatial correlations. *Journal of Chemical Physics*, **2014**, 141, 124105	3.9	22
311	Anomalous power law decay in solvation dynamics of DNA: a mode coupling theory analysis of ion contribution. *Molecular Physics*, **2014**, 112, 1418-1426	1.7	12
310	A stochastic chemical dynamic approach to correlate autoimmunity and optimal vitamin-D range. *PLoS ONE*, **2014**, 9, e100635	3.7	11

309	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	3.9	38
308	Anisotropy induced crossover from weakly to strongly first order melting of two dimensional solids. *Journal of Chemical Physics*, **2013**, 138, 184507	3.9	9
307	Solid-liquid transition in polydisperse Lennard-Jones systems. *Physical Review E*, **2013**, 88, 022104	2.4	13
306	Frequency dependence of specific heat in supercooled liquid water and emergence of correlated dynamics. *Journal of Chemical Physics*, **2013**, 138, 094503	3.9	22
305	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, 4488-502	3.4	22
304	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		2
303	Nucleation of a stable solid from melt in the presence of multiple metastable intermediate phases: wetting, Ostwald's step rule, and vanishing polymorphs. *Journal of Physical Chemistry B*, **2013**, 117, 13154-63	3.4	24
302	Solvent sensitivity of protein unfolding: dynamical study of chicken villin headpiece subdomain in water-ethanol binary mixture. *Journal of Physical Chemistry B*, **2013**, 117, 15625-38	3.4	39
301	Solid-solid collapse transition in a two dimensional model molecular system. *Journal of Chemical Physics*, **2013**, 139, 194702	3.9	2
300	Layerwise decomposition of water dynamics in reverse micelles: a simulation study of two-dimensional infrared spectrum. *Journal of Chemical Physics*, **2013**, 139, 144906	3.9	21
299	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	3.9	24
298	Kinetic proofreading at single molecular level: aminoacylation of tRNA(Ile) and the role of water as an editor. *PLoS ONE*, **2013**, 8, e66112	3.7	4
297	Water in Biological and Chemical Processes: From Structure and Dynamics to Function **2013**,		154
296	From anomalies in neat liquid to structure, dynamics and function in the biological world. *Chemical Physics Letters*, **2012**, 529, 1-9	2.5	44
295	Free energy barriers for escape of water molecules from protein hydration layer. *Journal of Physical Chemistry B*, **2012**, 116, 2958-68	3.4	32
294	Catalysis of tRNA aminoacylation: single turnover to steady-state kinetics of tRNA synthetases. *Journal of Physical Chemistry B*, **2012**, 116, 11809-17	3.4	7
293	Dynamics in the Crossover Region of Supercooled Liquids **2012**, 279-317		
292	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	3.9	49

291	Structural transformations, composition anomalies and a dramatic collapse of linear polymer chains in dilute ethanol-water mixtures. *Journal of Physical Chemistry B*, **2012**, 116, 3713-22	3.4	55
290	Hydration dynamics of protein molecules in aqueous solution: Unity among diversity#. *Journal of Chemical Sciences*, **2012**, 124, 317-325	1.8	22
289	Sensitivity of nucleation phenomena on range of interaction potential. *Journal of Chemical Physics*, **2012**, 136, 084701	3.9	3
288	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, 014513	3.9	22
287	Gas–liquid nucleation at large metastability: unusual features and a new formalism. *Journal of Statistical Mechanics: Theory and Experiment*, **2011**, 2011, P03017	1.9	7
286	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, 16220-6	3.6	24
285	Role of water in the enzymatic catalysis: study of ATP + AMP -l2ADP conversion by adenylate kinase. *Journal of Physical Chemistry A*, **2011**, 115, 3691-7	2.8	30
284	Anomalous behavior of linear hydrocarbon chains in water-DMSO binary mixture at low DMSO concentration. *Journal of Physical Chemistry B*, **2011**, 115, 7612-20	3.4	35
283	Theoretical and computational analysis of static and dynamic anomalies in water-DMSO binary mixture at low DMSO concentrations. *Journal of Physical Chemistry B*, **2011**, 115, 685-92	3.4	84
282	Crossover dynamics at large metastability in gas-liquid nucleation. *Physical Review E*, **2011**, 83, 031602	2.4	7
281	Inherent structures of phase-separating binary mixtures: nucleation, spinodal decomposition, and pattern formation. *Physical Review E*, **2011**, 83, 031506	2.4	12
280	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	3.9	34
279	Subquadratic wavenumber dependence of the structural relaxation of supercooled liquid in the crossover regime. *Journal of Chemical Physics*, **2010**, 132, 104503	3.9	19
278	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	3.9	12
277	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, 3633-8	3.4	39
276	Polarization caging in diffusion-controlled electron transfer reactions in solution. *Journal of Physical Chemistry B*, **2010**, 114, 12284-92	3.4	3
275	Solvation dynamics in dipolar liquids. *Chemical Society Reviews*, **2010**, 39, 1936-54	58.5	175
274	Enhanced pair hydrophobicity in the water-dimethylsulfoxide (DMSO) binary mixture at low DMSO concentrations. *Journal of Physical Chemistry B*, **2010**, 114, 12875-82	3.4	82

273	Vibrational dynamics and boson peak in a supercooled polydisperse liquid. *Physical Review E*, **2010**, 81, 031506	2.4	3
272	Photophysics of conjugated polymers: interplay between Förster energy migration and defect concentration in shaping a photochemical funnel in PPV. *Physical Chemistry Chemical Physics*, **2010**, 12, 7427-33	3.6	18
271	Temperature dependent free energy surface of polymer folding from equilibrium and quench studies. *Journal of Chemical Physics*, **2010**, 133, 214901	3.9	3
270	Interplay between multiple length and time scales in complex chemical systems. *Journal of Chemical Sciences*, **2010**, 122, 459-470	1.8	13
269	Line tension of a two dimensional gas-liquid interface. *Journal of Chemical Physics*, **2009**, 131, 084705	3.9	9
268	Role of conformational dynamics in kinetics of an enzymatic cycle in a nonequilibrium steady state. *Journal of Chemical Physics*, **2009**, 131, 065104	3.9	35
267	Nonspecifically bound proteins spin while diffusing along DNA. *Nature Structural and Molecular Biology*, **2009**, 16, 1224-9	17.6	252
266	Distance and orientation dependence of excitation energy transfer: from molecular systems to metal nanoparticles. *Journal of Physical Chemistry B*, **2009**, 113, 1817-32	3.4	118
265	Dynamical transition of water in the grooves of DNA duplex at low temperature. *Journal of Physical Chemistry B*, **2009**, 113, 4394-9	3.4	13
264	Intermittent dynamics, stochastic resonance and dynamical heterogeneity in supercooled liquid water. *Journal of Physical Chemistry B*, **2009**, 113, 2221-4	3.4	22
263	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, 8446-8	3.4	26
262	Diffusion of flexible, charged, nanoscopic molecules in solution: Size and pH dependence for PAMAM dendrimer. *Journal of Chemical Physics*, **2009**, 131, 214901	3.9	58
261	Dynamics of Thermotropic Liquid Crystals Across the Isotropic-Nematic Transition and Their Similarity with Glassy Relaxation in Supercooled Liquids. *Advances in Chemical Physics*, **2009**, 249-319		6
260	Simulation Study of the Molecular Mechanism of Intercalation of the Anti-Cancer Drug Daunomycin into DNA. *Springer Series in Chemical Physics*, **2009**, 165-180	0.3	
259	Two-dimensional reaction free energy surfaces of catalytic reaction: effects of protein conformational dynamics on enzyme catalysis. *Journal of Physical Chemistry B*, **2008**, 112, 454-66	3.4	64
258	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, 9747-55	16.4	151
257	Diffusion constant of a nonspecifically bound protein undergoing curvilinear motion along DNA. *Journal of Physical Chemistry B*, **2008**, 112, 6282-4	3.4	73
256	Hydrogen bond breaking mechanism and water reorientational dynamics in the hydration layer of lysozyme. *Journal of Physical Chemistry B*, **2008**, 112, 9112-7	3.4	45

255	Excitation Energy Transfer between Non-Spherical Metal Nanoparticles: Effects of Shape and Orientation on Distance Dependence of Transfer Rate. *Journal of Physical Chemistry C*, **2008**, 112, 6299-6306	3.8	14
254	Native and unfolded cytochrome c--comparison of dynamics using 2D-IR vibrational echo spectroscopy. *Journal of Physical Chemistry B*, **2008**, 112, 10054-63	3.4	34
253	Gas-liquid nucleation in a two dimensional system. *Journal of Chemical Physics*, **2008**, 129, 234704	3.9	17
252	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, 16077-82	11.5	87
251	Energy landscape, antiplasticization, and polydispersity induced crossover of heterogeneity in supercooled polydisperse liquids. *Physical Review Letters*, **2008**, 100, 167801	7.4	32
250	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	2.4	14
249	Chakrabarty, Santra, and Bagchi Reply:. *Physical Review Letters*, **2008**, 101,	7.4	6
248	Vibrational phase relaxation of OH stretch in bulk water: Role of large amplitude angular jumps and negative cross-correlations among the forces on the OH bond. *Chemical Physics*, **2008**, 343, 76-82	2.3	6
247	Collective Orientational Relaxation in Dense Dipolar Liquids. *Advances in Chemical Physics*, **2007**, 1-126		157
246	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		35
245	Rate of excitation energy transfer between fluorescent dyes and nanoparticles. *Journal of Photochemistry and Photobiology A: Chemistry*, **2007**, 190, 335-341	4.7	23
244	On the origin of the anomalous ultraslow solvation dynamics in heterogeneous environments. *Journal of Chemical Sciences*, **2007**, 119, 113-121	1.8	11
243	Orientational dynamics and energy landscape features of thermotropic liquid crystals: An analogy with supercooled liquids. *Journal of Chemical Sciences*, **2007**, 119, 343-350	1.8	4
242	Energy landscape view of nonideality in binary mixtures. *Journal of Chemical Physics*, **2007**, 126, 074501	3.9	8
241	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	3.9	11
240	Glassy orientational dynamics of rodlike molecules near the isotropic-nematic transition. *Physical Review E*, **2007**, 76, 011712	2.4	9
239	Orientational relaxation in a discotic liquid crystal. *Physical Review E*, **2007**, 75, 061703	2.4	4
238	Mode Coupling Theory Approach to the Liquid-State Dynamics. *Advances in Chemical Physics*, **2007**, 67-221		60

237	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		73
236	Elucidating the mechanism of nucleation near the gas-liquid spinodal. *Physical Review Letters*, **2007**, 98, 206104	7.4	42
235	Glassiness of thermotropic liquid crystals across the isotropic-nematic transition. *Journal of Physical Chemistry B*, **2007**, 111, 11646-57	3.4	11
234	Fluorescence resonance energy transfer (FRET) in chemistry and biology: Non-Förster distance dependence of the FRET rate. *Journal of Chemical Sciences*, **2006**, 118, 23-35	1.8	58
233	Coupling between hydration layer dynamics and unfolding kinetics of HP-36. *Journal of Chemical Physics*, **2006**, 125, 084912	3.9	24
232	Interaction induced shifts in O-H stretching frequency of water in halide-ion water clusters: a microscopic approach with a bond descriptor. *Journal of Chemical Physics*, **2006**, 125, 214304	3.9	11
231	Anisotropic translational diffusion in the nematic phase: dynamical signature of the coupling between orientational and translational order in the energy landscape. *Physical Review E*, **2006**, 74, 041704	2.4	3
230	Power law relaxation and glassy dynamics in Lebwohl-Lasher model near the isotropic-nematic phase transition. *Physical Review E*, **2006**, 73, 061706	2.4	9
229	Solvation Dynamics in Biological Systems and Organized Assemblies. *Journal of the Chinese Chemical Society*, **2006**, 53, 169-180	1.5	3
228	Decoupling phenomena in supercooled liquids: signatures in the energy landscape. *Physical Review Letters*, **2006**, 96, 187801	7.4	33
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225	Multiple short time power laws in the orientational relaxation of nematic liquid crystals. *Journal of Chemical Physics*, **2006**, 125, 184901	3.9	4
224	Multiple time scales in solvation dynamics of DNA in aqueous solution: the role of water, counterions, and cross-correlations. *Journal of Physical Chemistry B*, **2006**, 110, 26396-402	3.4	82
223	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, 20629-34	3.4	18
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