

Sarika Maitra Bhattacharyya

List of Publications by Year in descending order

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39
papers

1,087
citations

361296

20
h-index

395590

33
g-index

41
all docs

41
docs citations

41
times ranked

867
citing authors

#	ARTICLE	IF	CITATIONS
1	Anomalous diffusion of small particles in dense liquids. <i>Journal of Chemical Physics</i> , 1997, 106, 1757-1763.	1.2	138
2	Dynamics of Water near a Protein Surface. <i>Journal of Physical Chemistry B</i> , 2003, 107, 13218-13228.	1.2	100
3	Facilitation, complexity growth, mode coupling, and activated dynamics in supercooled liquids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 16077-16082.	3.3	94
4	Role of Structure and Entropy in Determining Differences in Dynamics for Glass Formers with Different Interaction Potentials. <i>Physical Review Letters</i> , 2014, 113, 225701.	2.9	66
5	Pressure and temperature dependence of viscosity and diffusion coefficients of a glassy binary mixture. <i>Journal of Chemical Physics</i> , 2002, 116, 4577-4586.	1.2	55
6	Anisotropic diffusion of spheroids in liquids: Slow orientational relaxation of the oblates. <i>Journal of Chemical Physics</i> , 2002, 116, 1092-1096.	1.2	50
7	Bridging the gap between the mode coupling and the random first order transition theories of structural relaxation in liquids. <i>Physical Review E</i> , 2005, 72, 031509.	0.8	45
8	Power law mass dependence of diffusion: A mode coupling theory analysis. <i>Physical Review E</i> , 2000, 61, 3850-3856.	0.8	41
9	Computer simulation and mode coupling theory study of the effects of specific solute-solvent interactions on diffusion: Crossover from a sub-slip to a super-stick limit of diffusion. <i>Journal of Chemical Physics</i> , 1999, 110, 4477-4482.	1.2	39
10	Vibrational energy relaxation, nonpolar solvation dynamics and instantaneous normal modes: Role of binary interaction in the ultrafast response of a dense liquid. <i>Journal of Chemical Physics</i> , 1998, 108, 4963-4971.	1.2	34
11	Bimodality of the viscoelastic response of a dense liquid and comparison with the frictional responses at short times. <i>Journal of Chemical Physics</i> , 1998, 109, 7885-7892.	1.2	32
12	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. <i>Journal of Chemical Physics</i> , 1999, 110, 7365-7375.	1.2	32
13	Unraveling the success and failure of mode coupling theory from consideration of entropy. <i>Journal of Chemical Physics</i> , 2015, 143, 174504.	1.2	30
14	Decoupling of tracer diffusion from viscosity in a supercooled liquid near the glass transition. <i>Journal of Chemical Physics</i> , 1997, 107, 5852-5862.	1.2	29
15	Determination of onset temperature from the entropy for fragile to strong liquids. <i>Journal of Chemical Physics</i> , 2017, 147, 024504.	1.2	26
16	Molecular Theory for the Effects of Specific Solute-Solvent Interaction on the Diffusion of a Solute Particle in a Molecular Liquid. <i>Journal of Physical Chemistry B</i> , 1998, 102, 3252-3256.	1.2	25
17	Fickian yet non-Gaussian behaviour: A dominant role of the intermittent dynamics. <i>Journal of Chemical Physics</i> , 2017, 146, 134504.	1.2	24
18	Subquadratic wavenumber dependence of the structural relaxation of supercooled liquid in the crossover regime. <i>Journal of Chemical Physics</i> , 2010, 132, 104503.	1.2	23

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19	Bimodality in the dynamic response of a supercooled liquid. <i>Journal of Chemical Physics</i> , 1997, 106, 7262-7267.	1.2	21
20	Effect of total and pair configurational entropy in determining dynamics of supercooled liquids over a range of densities. <i>Journal of Chemical Physics</i> , 2016, 145, 034502.	1.2	21
21	Role of the Pair Correlation Function in the Dynamical Transition Predicted by Mode Coupling Theory. <i>Physical Review Letters</i> , 2017, 119, 265502.	2.9	19
22	Interplay between crystallization and glass transition in binary Lennard-Jones mixtures. <i>Journal of Chemical Physics</i> , 2013, 139, 104501.	1.2	18
23	Microscopic Theory of Softness in Supercooled Liquids. <i>Physical Review Letters</i> , 2021, 126, 208001.	2.9	18
24	Correlated orientational and translational motions in supercooled liquids. <i>Journal of Chemical Physics</i> , 2002, 117, 2741-2746.	1.2	14
25	Diffusion of Small Solute Particles in Viscous Liquids: Cage Diffusion, a Result of Decoupling of Solute Solvent Dynamics, Leads to Amplification of Solute Diffusion. <i>Journal of Physical Chemistry B</i> , 2015, 119, 11169-11175.	1.2	14
26	Composition dependence of the glass forming ability in binary mixtures: The role of demixing entropy. <i>Journal of Chemical Physics</i> , 2016, 145, 034503.	1.2	11
27	Mode-coupling glass transition in a fluid confined by a periodic potential. <i>Physical Review E</i> , 2011, 84, 061501.	0.8	10
28	A mode coupling theory analysis of microscopic friction in the macroscopic limit. <i>Chemical Physics Letters</i> , 2004, 386, 83-88.	1.2	9
29	Validity of the Rosenfeld relationship: A comparative study of the network forming NTW model and other simple liquids. <i>Journal of Chemical Sciences</i> , 2017, 129, 793-800.	0.7	7
30	A comparative study of a class of mean field theories of the glass transition. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2019, 2019, 084008.	0.9	6
31	Connecting real glasses to mean-field models. <i>Journal of Chemical Physics</i> , 2021, 154, 094506.	1.2	6
32	Non-monotonic size dependence of diffusion and levitation effect: A mode-coupling theory analysis. <i>Journal of Chemical Physics</i> , 2013, 138, 124505.	1.2	5
33	Thermodynamics and its correlation with dynamics in a mean-field model and pinned systems: A comparative study using two different methods of entropy calculation. <i>Journal of Chemical Physics</i> , 2022, 156, 014503.	1.2	5
34	Identifying structural signature of dynamical heterogeneity via the local softness parameter. <i>Physical Review E</i> , 2022, 105, 044604.	0.8	4
35	Analysis of the anomalous mean-field like properties of Gaussian core model in terms of entropy. <i>Journal of Chemical Physics</i> , 2018, 148, 034504.	1.2	3
36	Continuous time random walk concepts applied to extended mode coupling theory: a study of the Stokes-Einstein breakdown. <i>Journal of Physics Condensed Matter</i> , 2020, 32, 064001.	0.7	3

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37	Effective structure of a system with continuous polydispersity. <i>Journal of Chemical Physics</i> , 2021, 154, 034503.	1.2	3
38	Emergence of cooperatively reorganizing cluster and super-Arrhenius dynamics of fragile supercooled liquids. <i>Physical Review E</i> , 2021, 103, 032611.	0.8	3
39	Comparative Study of Anomalous Size Dependence of Charged and Neutral Solute Diffusion in Water. <i>Journal of Physical Chemistry B</i> , 2019, 123, 10275-10285.	1.2	2