Ananya Debnath

List of Publications by Year
in descending order

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Version: 2024-02-01

28 papers	469 citations	840585 11 h-index	713332 21 g-index
28 all docs	28 docs citations	28 times ranked	549 citing authors

#	Article	IF	Citations
1	Entropy and dynamics of water in hydration layers of a bilayer. Journal of Chemical Physics, 2010, 133, 174704.	1.2	79
2	Structure and Dynamics of Phospholipid Nanodiscs from All-Atom and Coarse-Grained Simulations. Journal of Physical Chemistry B, 2015, 119, 6991-7002.	1.2	41
3	Solvent Assisted Tuning of Morphology of a Peptide-Perylenediimide Conjugate: Helical Fibers to Nano-Rings and their Differential Semiconductivity. Scientific Reports, 2017, 7, 9485.	1.6	38
4	Unusual confinement properties of a water insoluble small peptide hydrogel. Chemical Science, 2019, 10, 5920-5928.	3.7	38
5	The Influence of Bilayer Composition on the Gel to Liquid Crystalline Transition. Journal of Physical Chemistry B, 2009, 113, 10660-10668.	1.2	30
6	Hydration dynamics of a lipid membrane: Hydrogen bond networks and lipid-lipid associations. Journal of Chemical Physics, 2018, 148, .	1.2	29
7	Laterally structured ripple and square phases with one and two dimensional thickness modulations in a model bilayer system. Soft Matter, 2014, 10, 7630-7637.	1.2	22
8	Simulation of Influence of Bilayer Melting on Dynamics and Thermodynamics of Interfacial Water. Physical Review Letters, 2013, 110, 018303.	2.9	19
9	Heterogeneity in structure and dynamics of water near bilayers using TIP3P and TIP4P/2005 water models. Chemical Physics, 2019, 525, 110396.	0.9	18
10	Rate processes with dynamical disorder: A direct variational approach. Journal of Chemical Physics, 2006, 124, 204111.	1.2	17
11	Polymer in a double well: dynamics of translocation of short chains over a barrier. Journal of Physics Condensed Matter, 2006, 18, S283-S296.	0.7	15
12	Asymmetry and Rippling in Mixed Surfactant Bilayers from All-Atom and Coarse-Grained Simulations: Interdigitation and Per Chain Entropy. Journal of Physical Chemistry B, 2020, 124, 6420-6436.	1.2	13
13	Dehydration induced dynamical heterogeneity and ordering mechanism of lipid bilayers. Journal of Chemical Physics, 2021, 154, 174904.	1.2	13
14	Development of a hydrolase mimicking peptide amphiphile and its immobilization on silica surface for stereoselective and enhanced catalysis. Journal of Colloid and Interface Science, 2022, 618, 98-110.	5.0	13
15	Derivation of coarse-grained simulation models of chlorophyll molecules in lipid bilayers for applications in light harvesting systems. Physical Chemistry Chemical Physics, 2015, 17, 22054-22063.	1.3	11
16	A Comparative Study on DMSO-Induced Modulation of the Structural and Dynamical Properties of Model Bilayer Membranes. Langmuir, 2021, 37, 2065-2078.	1.6	11
17	Diffusion in an elastic medium: A model for macromolecule transport across the nuclear pore complex. Physica A: Statistical Mechanics and Its Applications, 2014, 404, 65-78.	1.2	10
18	Quantification of spatio-temporal scales of dynamical heterogeneity of water near lipid membranes above supercooling. Soft Matter, 2019, 15, 9805-9815.	1.2	9

#	Article	IF	Citations
19	Influence of water concentrations on the phase transformation of a model surfactant/co-surfactant/water system. Chemical Physics, 2017, 483-484, 103-111.	0.9	7
20	Trigonella seed extract ameliorates inflammation via regulation of the inflammasome adaptor protein ASC. Frontiers in Bioscience - Elite, 2017, 9, 246-257.	0.9	7
21	Modulation of Membrane Fluidity to Control Interfacial Water Structure and Dynamics in Saturated and Unsaturated Phospholipid Vesicles. Langmuir, 2020, 36, 12423-12434.	1.6	7
22	Dynamic coupling of a hydration layer to a fluid phospholipid membrane: intermittency and multiple time-scale relaxations. Physical Chemistry Chemical Physics, 2020, 22, 21158-21168.	1.3	7
23	Barrier crossing in one and three dimensions by a long chain. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P11024.	0.9	4
24	Structural changes of interfacial water upon fluid-ripple-gel phase transitions of bilayers. Chemical Physics Letters, 2022, 799, 139613.	1.2	4
25	Barrier crossing by a star polymer. Physical Review E, 2007, 76, 051803.	0.8	3
26	Molecular dynamics simulations of a stacked $$uppi $$-conjugated soft material: binding energy and preferential geometry for self-assembly. Bulletin of Materials Science, 2020, 43, 1.	0.8	2
27	Interactions Determining the Structural Integrity of the Trimer of Plant Light Harvesting Complex in Lipid Membranes. Journal of Membrane Biology, 2021, 254, 157-173.	1.0	2
28	Cylindrical to spherical shape transformations of micelles using all-atom and coarse-grained molecular dynamics simulations. AIP Conference Proceedings, 2019, , .	0.3	0