Susmita Roy

List of Publications by Year in descending order

30 papers	939 citations	471509 17 h-index	477307 29 g-index
34 all docs	34 docs citations	34 times ranked	1101 citing authors

#	Article	IF	Citations
1	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.	2.6	99
2	Enhanced Pair Hydrophobicity in the Waterâ"Dimethylsulfoxide (DMSO) Binary Mixture at Low DMSO Concentrations. Journal of Physical Chemistry B, 2010, 114, 12875-12882.	2.6	94
3	Redox-dependent gating of VDAC by mitoNEET. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19924-19929.	7.1	85
4	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.	3.0	67
5	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.	2.6	48
6	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.	3.0	47
7	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.	2.6	42
8	Free Energy Barriers for Escape of Water Molecules from Protein Hydration Layer. Journal of Physical Chemistry B, 2012, 116, 2958-2968.	2.6	40
9	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.	3.0	40
10	Dynamic Asymmetry Exposes 2019-nCoV Prefusion Spike. Journal of Physical Chemistry Letters, 2020, 11, 7021-7027.	4.6	39
11	PAGE4 and Conformational Switching: Insights from Molecular Dynamics Simulations and Implications for Prostate Cancer. Journal of Molecular Biology, 2018, 430, 2422-2438.	4.2	36
12	Sensitivity of Water Dynamics to Biologically Significant Surfaces of Monomeric Insulin: Role of Topology and Electrostatic Interactions. Journal of Physical Chemistry B, 2014, 118, 3805-3813.	2.6	30
13	Magnesium controls aptamer-expression platform switching in the SAM-I riboswitch. Nucleic Acids Research, 2019, 47, 3158-3170.	14.5	26
14	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.	2.6	24
15	A magnesium-induced triplex pre-organizes the SAM-II riboswitch. PLoS Computational Biology, 2017, 13, e1005406.	3.2	24
16	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.	3.0	23
17	Exploring Energy Landscapes of Intrinsically Disordered Proteins: Insights into Functional Mechanisms. Journal of Chemical Theory and Computation, 2021, 17, 3178-3187.	5.3	21
18	Cooperation between Magnesium and Metabolite Controls Collapse of the SAM-I Riboswitch. Biophysical Journal, 2017, 113, 348-359.	0.5	20

#	Article	IF	Citations
19	A VDAC1-mediated NEET protein chain transfers [2Fe-2S] clusters between the mitochondria and the cytosol and impacts mitochondrial dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	20
20	Structural and Dynamical Order of a Disordered Protein: Molecular Insights into Conformational Switching of PAGE4 at the Systems Level. Biomolecules, 2019, 9, 77.	4.0	19
21	A Stochastic Chemical Dynamic Approach to Correlate Autoimmunity and Optimal Vitamin-D Range. PLoS ONE, 2014, 9, e100635.	2.5	17
22	Intrinsically disordered proteins: Ensembles at the limits of Anfinsen's dogma. Biophysics Reviews, 2022, 3, .	2.7	15
23	Multidimensional free energy surface of unfolding of HP-36: Microscopic origin of ruggedness. Journal of Chemical Physics, 2014, 141, 135101.	3.0	13
24	Composition dependent non-ideality in aqueous binary mixtures as a signature of avoided spinodal decomposition. Journal of Chemical Sciences, 2015, 127, 49-59.	1.5	12
25	Mode coupling theory analysis of electrolyte solutions: Time dependent diffusion, intermediate scattering function, and ion solvation dynamics. Journal of Chemical Physics, 2015, 142, 124502.	3.0	9
26	Chelated Magnesium Logic Gate Regulates Riboswitch Pseudoknot Formation. Journal of Physical Chemistry B, 2021, 125, 6479-6490.	2.6	9
27	Fluctuation theory of immune response: A statistical mechanical approach to understand pathogen induced T-cell population dynamics. Journal of Chemical Physics, 2020, 153, 045107.	3.0	8
28	Correlation in Domain Fluctuations Navigates Target Search of a Viral Peptide along RNA. Journal of Physical Chemistry B, 2021, 125, 12678-12689.	2.6	2
29	Miniature Î²-Hairpin Mimetic by Intramolecular Hydrogen Bond and Câ€“HÂ·Â·Â·Ï€ Interactions. ACS Omega, 0, , .	3.5	2
30	Immune phase transition under steroid treatment. Physical Review E, 2021, 103, 062401.	2.1	1