Samrat Mukhopadhyay

List of Publications by Year
in descending order

68 papers	2,534 citations	236612 25 h-index	205818 48 g-index
75 all docs	75 docs citations	75 times ranked	2922 citing authors

#	Article	IF	Citations
1	A natively unfolded yeast prion monomer adopts an ensemble of collapsed and rapidly fluctuating structures. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 2649-2654.	3.3	296
2	Single-molecule biophysics: at the interface of biology, physics and chemistry. Journal of the Royal Society Interface, 2008, 5, 15-45.	1.5	263
3	Hydrophobic Pockets in a Nonpolymeric Aqueous Gel: Observation of such a Gelation Process by Color Change. Angewandte Chemie - International Edition, 2001, 40, 2281-2283.	7.2	169
4	Insights into the Mechanism of Aggregation and Fibril Formation from Bovine Serum Albumin. Journal of Physical Chemistry B, 2011, 115, 4195-4205.	1.2	166
5	Conserved features of intermediates in amyloid assembly determine their benign or toxic states. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 11172-11177.	3.3	115
6	Liquidâ€"Liquid Phase Separation Is Driven by Large-Scale Conformational Unwinding and Fluctuations of Intrinsically Disordered Protein Molecules. Journal of Physical Chemistry Letters, 2019, 10, 3929-3936.	2.1	113
7	Hydrogel route to nanotubes of metal oxides and sulfates. Journal of Materials Chemistry, 2003, 13, 2118.	6.7	105
8	Structure and Dynamics of a Molecular Hydrogel Derived from a Tripodal Cholamide. Journal of the American Chemical Society, 2004, 126, 15905-15914.	6.6	93
9	Characterization of the Formation of Amyloid Protofibrils from Barstar by Mapping Residue-specific Fluorescence Dynamics. Journal of Molecular Biology, 2006, 358, 935-942.	2.0	63
10	pH-induced Conformational Isomerization of Bovine Serum Albumin Studied by Extrinsic and Intrinsic Protein Fluorescence. Journal of Fluorescence, 2011, 21, 1083-1090.	1.3	62
11	Intermolecular Charge-Transfer Modulates Liquidâ€"Liquid Phase Separation and Liquid-to-Solid Maturation of an Intrinsically Disordered pH-Responsive Domain. Journal of the American Chemical Society, 2019, 141, 20380-20389.	6.6	54
12	Liquidâ€"liquid phase separation of tau: From molecular biophysics to physiology and disease. Protein Science, 2021, 30, 1294-1314.	3.1	54
13	Direct and selective elimination of specific prions and amyloids by 4,5-dianilinophthalimide and analogs. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 7159-7164.	3.3	53
14	Structural and Dynamical Insights into the Membrane-Bound Î±-Synuclein. PLoS ONE, 2013, 8, e83752.	1.1	53
15	Chain Collapse of an Amyloidogenic Intrinsically Disordered Protein. Biophysical Journal, 2011, 101, 1720-1729.	0.2	51
16	Spatiotemporal modulations in heterotypic condensates of prion and Î±-synuclein control phase transitions and amyloid conversion. Nature Communications, 2022, 13, 1154.	5.8	47
17	Structural and Dynamical Insights into the Molten-Globule Form of Ovalbumin. Journal of Physical Chemistry B, 2012, 116, 520-531.	1.2	40
18	An intrinsically disordered pathological prion variant Y145Stop converts into self-seeding amyloids via liquidâ€"liquid phase separation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	38

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19	Ordered Water within the Collapsed Globules of an Amyloidogenic Intrinsically Disordered Protein. Journal of Physical Chemistry B, 2014, 118, 9191-9198.	1.2	36
20	Dynamics of Bound Dyes in a Nonpolymeric Aqueous Gel Derived from a Tripodal Bile Salt. Journal of Physical Chemistry B, 2003, 107, 2189-2192.	1.2	35
21	Direct Observation of the Intrinsic Backbone Torsional Mobility of Disordered Proteins. Biophysical Journal, 2016, 111, 768-774.	0.2	34
22	Femtosecond Hydration Map of Intrinsically Disordered Î±-Synuclein. Biophysical Journal, 2018, 114, 2540-2551.	0.2	32
23	The Dynamism of Intrinsically Disordered Proteins: Binding-Induced Folding, Amyloid Formation, and Phase Separation. Journal of Physical Chemistry B, 2020, 124, 11541-11560.	1.2	31
24	Electrostatic lipidâ€“protein interactions sequester the curli amyloid fold on the lipopolysaccharide membrane surface. Journal of Biological Chemistry, 2017, 292, 19861-19872.	1.6	27
25	Fluorescence from Diffusing Single Molecules Illuminates Biomolecular Structure and Dynamics. Journal of Fluorescence, 2007, 17, 775-783.	1.3	26
26	Nanoscopic Amyloid Pores Formed via Stepwise Protein Assembly. Journal of Physical Chemistry Letters, 2013, 4, 480-485.	2.1	26
27	Water Rearrangements upon Disorder-to-Order Amyloid Transition. Journal of Physical Chemistry Letters, 2016, 7, 4105-4110.	2.1	26
28	Fluorescence Depolarization Kinetics to Study the Conformational Preference, Structural Plasticity, Binding, and Assembly of Intrinsically Disordered Proteins. Methods in Enzymology, 2018, 611, 347-381.	0.4	25
29	Appearance of annular ring-like intermediates during amyloid fibril formation from human serum albumin. Physical Chemistry Chemical Physics, 2015, 17, 22862-22871.	1.3	24
30	Synergistic Amyloid Switch Triggered by Early Heterotypic Oligomerization of Intrinsically Disordered Î±-Synuclein and Tau. Journal of Molecular Biology, 2018, 430, 2508-2520.	2.0	23
31	pH-Responsive Mechanistic Switch Regulates the Formation of Dendritic and Fibrillar Nanostructures of a Functional Amyloid. Journal of Physical Chemistry B, 2017, 121, 412-419.	1.2	21
32	Kinetics of Surfactant-induced Aggregation of Lysozyme Studied by Fluorescence Spectroscopy. Journal of Fluorescence, 2011, 21, 615-625.	1.3	20
33	Conformational Switching and Nanoscale Assembly of Human Prion Protein into Polymorphic Amyloids via Structurally Labile Oligomers. Biochemistry, 2015, 54, 7505-7513.	1.2	19
34	Intrinsically disordered proteins in the formation of functional amyloids from bacteria to humans. Progress in Molecular Biology and Translational Science, 2019, 166, 109-143.	0.9	19
35	Differentiating Conformationally Distinct Alzheimerâ€™s Amyloid-Î² Oligomers Using Liquid Crystals. Journal of Physical Chemistry Letters, 2020, 11, 9012-9018.	2.1	19
36	Facile Synthesis, Aggregation Behavior, and Cholesterol Solubilization Ability of Avicholic Acid. Organic Letters, 2004, 6, 31-34.	2.4	18

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37	Nanoscale Fluorescence Imaging of Single Amyloid Fibrils. Journal of Physical Chemistry Letters, 2012, 3, 1783-1787.	2.1	18
38	Preferential Recruitment of Conformationally Distinct Amyloid-Î² Oligomers by the Intrinsically Disordered Region of the Human Prion Protein. ACS Chemical Neuroscience, 2020, 11, 86-98.	1.7	16
39	Prion Protein Biology Through the Lens of Liquid-Liquid Phase Separation. Journal of Molecular Biology, 2022, 434, 167368.	2.0	16
40	Hofmeister Ions Modulate the Autocatalytic Amyloidogenesis of an Intrinsically Disordered Functional Amyloid Domain via Unusual Biphasic Kinetics. Journal of Molecular Biology, 2020, 432, 6173-6186.	2.0	15
41	Distinct types of amyloidâ€Î² oligomers displaying diverse neurotoxicity mechanisms in Alzheimer's disease. Journal of Cellular Biochemistry, 2021, 122, 1594-1608.	1.2	15
42	Confined Water in Amyloidâ€Competent Oligomers of the Prion Protein. ChemPhysChem, 2016, 17, 2804-2807.	1.0	11
43	Short-Range Backbone Dihedral Rotations Modulate Internal Friction in Intrinsically Disordered Proteins. Journal of the American Chemical Society, 2022, 144, 1739-1747.	6.6	11
44	Design of Aqueous-Liquid Crystal Interfaces To Monitor Protein Aggregation at Nanomolar Concentrations. Journal of Physical Chemistry C, 2019, 123, 1305-1312.	1.5	10
45	Discerning Dynamic Signatures of Membrane-Bound Î±-Synuclein Using Site-Specific Fluorescence Depolarization Kinetics. Journal of Physical Chemistry B, 2020, 124, 708-717.	1.2	9
46	Conformation-specific perturbation of membrane dynamics by structurally distinct oligomers of Alzheimer's amyloid-Î² peptide. Physical Chemistry Chemical Physics, 2021, 23, 9686-9694.	1.3	9
47	Dynamics and dimension of an amyloidogenic disordered state of human Î²2-microglobulin. European Biophysics Journal, 2013, 42, 767-776.	1.2	8
48	Site-Specific Fluorescence Depolarization Kinetics Distinguishes the Amyloid Folds Responsible for Distinct Yeast Prion Strains. Journal of Physical Chemistry B, 2017, 121, 8447-8453.	1.2	8
49	Formation of Heterotypic Amyloids: Î±â€Synuclein in Coâ€Aggregation. Proteomics, 2018, 18, e1800059.	1.3	8
50	Applications of Fluorescence Anisotropy in Understanding Protein Conformational Disorder and Aggregation. Progress in Optical Science and Photonics, 2015, , 41-57.	0.3	7
51	Human Fibrinogen Inhibits Amyloid Assembly of Biofilm-Forming CsgA. Biochemistry, 2018, 57, 6270-6273.	1.2	7
52	Excitation Energy Migration Unveils Fuzzy Interfaces within the Amyloid Architecture. Biophysical Journal, 2020, 118, 2621-2626.	0.2	7
53	Fluorescence Depolarization Kinetics Captures Short-Range Backbone Dihedral Rotations and Long-Range Correlated Dynamics of an Intrinsically Disordered Protein. Journal of Physical Chemistry B, 2021, 125, 9708-9718.	1.2	7
54	Characterization of Salt-Induced Oligomerization of Human Î²₂-Microglobulin at Low pH. Journal of Physical Chemistry B, 2016, 120, 7815-7823.	1.2	6

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55	Ultrasensitive Characterization of the Prion Protein by Surface-Enhanced Raman Scattering: Selective Enhancement via Electrostatic Tethering of the Intrinsically Disordered Domain with Functionalized Silver Nanoparticles. Journal of Physical Chemistry Letters, 2021, 12, 3187-3194.	2.1	6
56	Studying backbone torsional dynamics of intrinsically disordered proteins using fluorescence depolarization kinetics. Journal of Biosciences, 2018, 43, 455-462.	0.5	5
57	Advances in Molecular Hydrogels. , 2006, , 613-647.		4
58	Excitation energy migration to study protein oligomerization and amyloid formation. Biophysical Chemistry, 2022, 281, 106719.	1.5	4
59	Nanophotonics of protein amyloids. Nanophotonics, 2014, 3, 51-59.	2.9	3
60	Studying Protein Misfolding and Aggregation by Fluorescence Spectroscopy. Reviews in Fluorescence, 2016, , 1-27.	0.5	3
61	Stepwise unfolding of human Î²2-microglobulin into a disordered amyloidogenic precursor at low pH. European Biophysics Journal, 2017, 46, 65-76.	1.2	3
62	Energy migration captures membrane-induced oligomerization of the prion protein. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2020, 1868, 140324.	1.1	3
63	Conformational and Solvation Dynamics of an Amyloidogenic Intrinsically Disordered Domain of a Melanosomal Protein. Journal of Physical Chemistry B, 2022, 126, 443-452.	1.2	3
64	Substoichiometric Hsp104 regulates the genesis and persistence of self-replicable amyloid seeds of Sup35 prion domain. Journal of Biological Chemistry, 2022, 298, 102143.	1.6	3
65	Catalytic coacervate crucibles. Nature Chemistry, 2021, 13, 1028-1030.	6.6	2
66	Studying backbone torsional dynamics of intrinsically disordered proteins using fluorescence depolarization kinetics. Journal of Biosciences, 2018, 43, 455-462.	0.5	2
67	Nanoscale Optical Imaging of Protein Amyloids. , 2014, , 409-428.		1
68	Detergent-induced aggregation of an amyloidogenic intrinsically disordered protein. Journal of Chemical Sciences, 2017, 129, 1817-1827.	0.7	0