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	Excitation energy migration to study protein oligomerization and amyloid formation. Biophysical Chemistry, 2022, 281, 106719.	1.5	4
2	Prion Protein Biology Through the Lens of Liquid-Liquid Phase Separation. Journal of Molecular Biology, 2022, 434, 167368.	2.0	16
3	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
4	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
5	Spatiotemporal modulations in heterotypic condensates of prion and Î±-synuclein control phase transitions and amyloid conversion. Nature Communications, 2022, 13, 1154.	5.8	47
6	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
7	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
8	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
9	Liquidâ€"liquid phase separation of tau: From molecular biophysics to physiology and disease. Protein Science, 2021, 30, 1294-1314.	3.1	54
10	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
11	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
12	Catalytic coacervate crucibles. Nature Chemistry, 2021, 13, 1028-1030.	6.6	2
13	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
14	Energy migration captures membrane-induced oligomerization of the prion protein. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2020, 1868, 140324.	1.1	3
15	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
16	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
17	Differentiating Conformationally Distinct Alzheimerâ€™s Amyloid-Î² Oligomers Using Liquid Crystals. Journal of Physical Chemistry Letters, 2020, 11, 9012-9018.	2.1	19
18	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

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19	Excitation Energy Migration Unveils Fuzzy Interfaces within the Amyloid Architecture. Biophysical Journal, 2020, 118, 2621-2626.	0.2	7
20	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
21	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
22	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
23	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
24	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
25	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
26	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
27	Human Fibrinogen Inhibits Amyloid Assembly of Biofilm-Forming CsgA. Biochemistry, 2018, 57, 6270-6273.	1.2	7
28	Formation of Heterotypic Amyloids: Î±â€Synuclein in Coâ€Aggregation. Proteomics, 2018, 18, e1800059.	1.3	8
29	Femtosecond Hydration Map of Intrinsically Disordered Î±-Synuclein. Biophysical Journal, 2018, 114, 2540-2551.	0.2	32
30	Studying backbone torsional dynamics of intrinsically disordered proteins using fluorescence depolarization kinetics. Journal of Biosciences, 2018, 43, 455-462.	0.5	5
31	Studying backbone torsional dynamics of intrinsically disordered proteins using fluorescence depolarization kinetics. Journal of Biosciences, 2018, 43, 455-462.	0.5	2
32	Stepwise unfolding of human Î²2-microglobulin into a disordered amyloidogenic precursor at low pH. European Biophysics Journal, 2017, 46, 65-76.	1.2	3
33	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
34	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
35	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
36	Detergent-induced aggregation of an amyloidogenic intrinsically disordered protein. Journal of Chemical Sciences, 2017, 129, 1817-1827.	0.7	0

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37	Confined Water in Amyloidâ€Competent Oligomers of the Prion Protein. ChemPhysChem, 2016, 17, 2804-2807.	1.0	11
38	Water Rearrangements upon Disorder-to-Order Amyloid Transition. Journal of Physical Chemistry Letters, 2016, 7, 4105-4110.	2.1	26
39	Characterization of Salt-Induced Oligomerization of Human Î²₂-Microglobulin at Low pH. Journal of Physical Chemistry B, 2016, 120, 7815-7823.	1.2	6
40	Direct Observation of the Intrinsic Backbone Torsional Mobility of Disordered Proteins. Biophysical Journal, 2016, 111, 768-774.	0.2	34
41	Studying Protein Misfolding and Aggregation by Fluorescence Spectroscopy. Reviews in Fluorescence, 2016, , 1-27.	0.5	3
42	Conformational Switching and Nanoscale Assembly of Human Prion Protein into Polymorphic Amyloids via Structurally Labile Oligomers. Biochemistry, 2015, 54, 7505-7513.	1.2	19
43	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
44	Applications of Fluorescence Anisotropy in Understanding Protein Conformational Disorder and Aggregation. Progress in Optical Science and Photonics, 2015, , 41-57.	0.3	7
45	Nanoscale Optical Imaging of Protein Amyloids. , 2014, , 409-428.		1
46	Ordered Water within the Collapsed Globules of an Amyloidogenic Intrinsically Disordered Protein. Journal of Physical Chemistry B, 2014, 118, 9191-9198.	1.2	36
47	Nanophotonics of protein amyloids. Nanophotonics, 2014, 3, 51-59.	2.9	3
48	Dynamics and dimension of an amyloidogenic disordered state of human Î²2-microglobulin. European Biophysics Journal, 2013, 42, 767-776.	1.2	8
49	Nanoscopic Amyloid Pores Formed via Stepwise Protein Assembly. Journal of Physical Chemistry Letters, 2013, 4, 480-485.	2.1	26
50	Structural and Dynamical Insights into the Membrane-Bound Î±-Synuclein. PLoS ONE, 2013, 8, e83752.	1.1	53
51	Nanoscale Fluorescence Imaging of Single Amyloid Fibrils. Journal of Physical Chemistry Letters, 2012, 3, 1783-1787.	2.1	18
52	Structural and Dynamical Insights into the Molten-Globule Form of Ovalbumin. Journal of Physical Chemistry B, 2012, 116, 520-531.	1.2	40
53	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
54	Chain Collapse of an Amyloidogenic Intrinsically Disordered Protein. Biophysical Journal, 2011, 101, 1720-1729.	0.2	51

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55	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
56	Kinetics of Surfactant-induced Aggregation of Lysozyme Studied by Fluorescence Spectroscopy. Journal of Fluorescence, 2011, 21, 615-625.	1.3	20
57	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
58	Single-molecule biophysics: at the interface of biology, physics and chemistry. Journal of the Royal Society Interface, 2008, 5, 15-45.	1.5	263
59	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
60	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
61	Fluorescence from Diffusing Single Molecules Illuminates Biomolecular Structure and Dynamics. Journal of Fluorescence, 2007, 17, 775-783.	1.3	26
62	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
63	Advances in Molecular Hydrogels. , 2006, , 613-647.		4
64	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
65	Facile Synthesis, Aggregation Behavior, and Cholesterol Solubilization Ability of Avicholic Acid. Organic Letters, 2004, 6, 31-34.	2.4	18
66	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
67	Hydrogel route to nanotubes of metal oxides and sulfates. Journal of Materials Chemistry, 2003, 13, 2118.	6.7	105
68	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