

Samrat Mukhopadhyay

List of Publications by Year in descending order

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Version: 2024-02-01

68
papers

2,534
citations

236925
25
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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.	2.8	4
2	Prion Protein Biology Through the Lens of Liquid-Liquid Phase Separation. Journal of Molecular Biology, 2022, 434, 167368.	4.2	16
3	Short-Range Backbone Dihedral Rotations Modulate Internal Friction in Intrinsically Disordered Proteins. Journal of the American Chemical Society, 2022, 144, 1739-1747.	13.7	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.	2.6	3
5	Spatiotemporal modulations in heterotypic condensates of prion and α -synuclein control phase transitions and amyloid conversion. Nature Communications, 2022, 13, 1154.	12.8	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.	3.4	3
7	Conformation-specific perturbation of membrane dynamics by structurally distinct oligomers of Alzheimer's amyloid- β peptide. Physical Chemistry Chemical Physics, 2021, 23, 9686-9694.	2.8	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.	4.6	6
9	Liquid-liquid phase separation of tau: From molecular biophysics to physiology and disease. Protein Science, 2021, 30, 1294-1314.	7.6	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.	2.6	7
11	Distinct types of amyloid- β oligomers displaying diverse neurotoxicity mechanisms in Alzheimer's disease. Journal of Cellular Biochemistry, 2021, 122, 1594-1608.	2.6	15
12	Catalytic coacervate crucibles. Nature Chemistry, 2021, 13, 1028-1030.	13.6	2
13	An intrinsically disordered pathological prion variant Y145Stop converts into self-seeding amyloids via liquid-liquid phase separation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	38
14	Energy migration captures membrane-induced oligomerization of the prion protein. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2020, 1868, 140324.	2.3	3
15	Preferential Recruitment of Conformationally Distinct Amyloid- β Oligomers by the Intrinsically Disordered Region of the Human Prion Protein. ACS Chemical Neuroscience, 2020, 11, 86-98.	3.5	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.	4.2	15
17	Differentiating Conformationally Distinct Alzheimer's Amyloid- β Oligomers Using Liquid Crystals. Journal of Physical Chemistry Letters, 2020, 11, 9012-9018.	4.6	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.	2.6	31

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19	Excitation Energy Migration Unveils Fuzzy Interfaces within the Amyloid Architecture. Biophysical Journal, 2020, 118, 2621-2626.	0.5	7
20	Discerning Dynamic Signatures of Membrane-Bound α -Synuclein Using Site-Specific Fluorescence Depolarization Kinetics. Journal of Physical Chemistry B, 2020, 124, 708-717.	2.6	9
21	Liquid-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.	4.6	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.	1.7	19
23	Intermolecular Charge-Transfer Modulates Liquid-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.	13.7	54
24	Design of Aqueous-Liquid Crystal Interfaces To Monitor Protein Aggregation at Nanomolar Concentrations. Journal of Physical Chemistry C, 2019, 123, 1305-1312.	3.1	10
25	Synergistic Amyloid Switch Triggered by Early Heterotypic Oligomerization of Intrinsically Disordered α -Synuclein and Tau. Journal of Molecular Biology, 2018, 430, 2508-2520.	4.2	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.	1.0	25
27	Human Fibrinogen Inhibits Amyloid Assembly of Biofilm-Forming CsgA. Biochemistry, 2018, 57, 6270-6273.	2.5	7
28	Formation of Heterotypic Amyloids: α -Synuclein in Co-Aggregation. Proteomics, 2018, 18, e1800059.	2.2	8
29	Femtosecond Hydration Map of Intrinsically Disordered α -Synuclein. Biophysical Journal, 2018, 114, 2540-2551.	0.5	32
30	Studying backbone torsional dynamics of intrinsically disordered proteins using fluorescence depolarization kinetics. Journal of Biosciences, 2018, 43, 455-462.	1.1	5
31	Studying backbone torsional dynamics of intrinsically disordered proteins using fluorescence depolarization kinetics. Journal of Biosciences, 2018, 43, 455-462.	1.1	2
32	Stepwise unfolding of human β 2-microglobulin into a disordered amyloidogenic precursor at low pH. European Biophysics Journal, 2017, 46, 65-76.	2.2	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.	2.6	21
34	Electrostatic lipid-protein interactions sequester the curli amyloid fold on the lipopolysaccharide membrane surface. Journal of Biological Chemistry, 2017, 292, 19861-19872.	3.4	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.	2.6	8
36	Detergent-induced aggregation of an amyloidogenic intrinsically disordered protein. Journal of Chemical Sciences, 2017, 129, 1817-1827.	1.5	0

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37	Confined Water in Amyloid-Competent Oligomers of the Prion Protein. ChemPhysChem, 2016, 17, 2804-2807.	2.1	11
38	Water Rearrangements upon Disorder-to-Order Amyloid Transition. Journal of Physical Chemistry Letters, 2016, 7, 4105-4110.	4.6	26
39	Characterization of Salt-Induced Oligomerization of Human β^2 -Microglobulin at Low pH. Journal of Physical Chemistry B, 2016, 120, 7815-7823.	2.6	6
40	Direct Observation of the Intrinsic Backbone Torsional Mobility of Disordered Proteins. Biophysical Journal, 2016, 111, 768-774.	0.5	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.	2.5	19
43	Appearance of annular ring-like intermediates during amyloid fibril formation from human serum albumin. Physical Chemistry Chemical Physics, 2015, 17, 22862-22871.	2.8	24
44	Applications of Fluorescence Anisotropy in Understanding Protein Conformational Disorder and Aggregation. Progress in Optical Science and Photonics, 2015, , 41-57.	0.5	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.	2.6	36
47	Nanophotonics of protein amyloids. Nanophotonics, 2014, 3, 51-59.	6.0	3
48	Dynamics and dimension of an amyloidogenic disordered state of human β^2 -microglobulin. European Biophysics Journal, 2013, 42, 767-776.	2.2	8
49	Nanoscope Amyloid Pores Formed via Stepwise Protein Assembly. Journal of Physical Chemistry Letters, 2013, 4, 480-485.	4.6	26
50	Structural and Dynamical Insights into the Membrane-Bound β^2 -Synuclein. PLoS ONE, 2013, 8, e83752.	2.5	53
51	Nanoscale Fluorescence Imaging of Single Amyloid Fibrils. Journal of Physical Chemistry Letters, 2012, 3, 1783-1787.	4.6	18
52	Structural and Dynamical Insights into the Molten-Globule Form of Ovalbumin. Journal of Physical Chemistry B, 2012, 116, 520-531.	2.6	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.	7.1	115
54	Chain Collapse of an Amyloidogenic Intrinsically Disordered Protein. Biophysical Journal, 2011, 101, 1720-1729.	0.5	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.	2.6	166
56	Kinetics of Surfactant-induced Aggregation of Lysozyme Studied by Fluorescence Spectroscopy. Journal of Fluorescence, 2011, 21, 615-625.	2.5	20
57	pH-induced Conformational Isomerization of Bovine Serum Albumin Studied by Extrinsic and Intrinsic Protein Fluorescence. Journal of Fluorescence, 2011, 21, 1083-1090.	2.5	62
58	Single-molecule biophysics: at the interface of biology, physics and chemistry. Journal of the Royal Society Interface, 2008, 5, 15-45.	3.4	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.	7.1	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.	7.1	296
61	Fluorescence from Diffusing Single Molecules Illuminates Biomolecular Structure and Dynamics. Journal of Fluorescence, 2007, 17, 775-783.	2.5	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.	4.2	63
63	Advances in Molecular Hydrogels. , 2006, , 613-647.		4
64	Structure and Dynamics of a Molecular Hydrogel Derived from a Tripodal Chalamide. Journal of the American Chemical Society, 2004, 126, 15905-15914.	13.7	93
65	Facile Synthesis, Aggregation Behavior, and Cholesterol Solubilization Ability of Avicholic Acid. Organic Letters, 2004, 6, 31-34.	4.6	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.	2.6	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.	13.8	169