Hirak Chakraborty

List of Publications by Year
in descending order

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73 papers	1,340 citations	331670 21 h-index	414414 32 g-index
75 all docs	75 docs citations	75 times ranked	1377 citing authors

#	Article	IF	Citations
1	Membrane Cholesterol Modulates Oligomeric Status and Peptide-Membrane Interaction of Severe Acute Respiratory Syndrome Coronavirus Fusion Peptide. Journal of Physical Chemistry B, 2019, 123, 10654-10662.	2.6	101
2	Optical Spectroscopic and TEM Studies of Catanionic Micelles of CTAB/SDS and Their Interaction with a NSAID. Langmuir, 2004, 20, 3551-3558.	3.5	87
3	Incorporation of NSAIDs in micelles: implication of structural switchover in drugâ€“membrane interaction. Biophysical Chemistry, 2003, 104, 315-325.	2.8	49
4	Membrane Composition Modulates Fusion by Altering Membrane Properties and Fusion Peptide Structure. Journal of Membrane Biology, 2019, 252, 261-272.	2.1	47
5	Photophysical studies of oxicam group of NSAIDs: piroxicam, meloxicam and tenoxicam. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2003, 59, 1213-1222.	3.9	42
6	Host-guest complexation of oxicam NSAIDs with ?-cyclodextrin. Biopolymers, 2004, 75, 355-365.	2.4	41
7	Activation Thermodynamics of Poly(Ethylene Glycol)-Mediated Model Membrane Fusion Support Mechanistic Models of Stalk and Pore Formation. Biophysical Journal, 2012, 102, 2751-2760.	0.5	41
8	Membrane fusion: A new function of non steroidal anti-inflammatory drugs. Biophysical Chemistry, 2008, 137, 28-34.	2.8	40
9	Wild-Type and Mutant Hemagglutinin Fusion Peptides Alter Bilayer Structure as Well as Kinetics and Activation Thermodynamics of Stalk and Pore Formation Differently: Mechanistic Implications. Biophysical Journal, 2013, 105, 2495-2506.	0.5	40
10	Membrane dipole potential is sensitive to cholesterol stereospecificity: Implications for receptor function. Chemistry and Physics of Lipids, 2014, 184, 25-29.	3.2	38
11	Mechanistic insights of host cell fusion of SARS-CoV-1 and SARS-CoV-2 from atomic resolution structure and membrane dynamics. Biophysical Chemistry, 2020, 265, 106438.	2.8	35
12	Entry Inhibitors: Efficient Means to Block Viral Infection. Journal of Membrane Biology, 2020, 253, 425-444.	2.1	35
13	Excitements and Challenges in GPCR Oligomerization: Molecular Insight from FRET. ACS Chemical Neuroscience, 2015, 6, 199-206.	3.5	34
14	Hemagglutinin Fusion Peptide Mutants in Model Membranes: Structural Properties, Membrane Physical Properties, and PEG-Mediated Fusion. Biophysical Journal, 2011, 101, 1095-1104.	0.5	33
15	Phosphatidylserine Inhibits and Calcium Promotes Model Membrane Fusion. Biophysical Journal, 2012, 103, 1880-1889.	0.5	31
16	Mechanism of Membrane Fusion: Interplay of Lipid and Peptide. Journal of Membrane Biology, 2022, 255, 211-224.	2.1	29
17	Differential Membrane Dipolar Orientation Induced by Acute and Chronic Cholesterol Depletion. Scientific Reports, 2017, 7, 4484.	3.3	28
18	Interaction of oxicam NSAIDs with DMPC vesicles: differential partitioning of drugs. Chemistry and Physics of Lipids, 2005, 138, 20-28.	3.2	26

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19	Cholesterol Modulates Membrane Properties and the Interaction of gp41 Fusion Peptide To Promote Membrane Fusion. Journal of Physical Chemistry B, 2019, 123, 7113-7122.	2.6	26
20	Molecular rheology of neuronal membranes explored using a molecular rotor: Implications for receptor function. Chemistry and Physics of Lipids, 2016, 196, 69-75.	3.2	25
21	Interaction of piroxicam with mitochondrial membrane and cytochrome c. Biochimica Et Biophysica Acta - Biomembranes, 2007, 1768, 1138-1146.	2.6	24
22	Depth-Dependent Membrane Ordering by Hemagglutinin Fusion Peptide Promotes Fusion. Journal of Physical Chemistry B, 2017, 121, 1640-1648.	2.6	24
23	Cholesterol alters the inhibitory efficiency of peptide-based membrane fusion inhibitor. Biochimica Et Biophysica Acta - Biomembranes, 2019, 1861, 183056.	2.6	24
24	Exploring the Mechanism of Viral Peptide-Induced Membrane Fusion. Advances in Experimental Medicine and Biology, 2018, 1112, 69-78.	1.6	22
25	Coronin 1 derived tryptophan-aspartic acid containing peptides inhibit membrane fusion. Chemistry and Physics of Lipids, 2018, 217, 35-42.	3.2	22
26	Interaction of piroxicam with micelles: Effect of hydrophobic chain length on structural switchover. Biophysical Chemistry, 2005, 117, 79-85.	2.8	21
27	Depth-Dependent Organization and Dynamics of Archaeal and Eukaryotic Membranes: Development of Membrane Anisotropy Gradient with Natural Evolution. Langmuir, 2015, 31, 11591-11597.	3.5	21
28	Exploring oligomeric state of the serotonin_{1A} receptor utilizing photobleaching image correlation spectroscopy: implications for receptor function. Faraday Discussions, 2018, 207, 409-421.	3.2	20
29	Enhanced Cholesterol-Dependent Hemifusion by Internal Fusion Peptide 1 of SARS Coronavirus-2 Compared to Its N-Terminal Counterpart. Biochemistry, 2021, 60, 559-562.	2.5	20
30	Multiple Functions of Generic Drugs: Future Perspectives of Aureolic Acid Group of Anti-Cancer Antibiotics and Non-Steroidal Anti-Inflammatory Drugs. Mini-Reviews in Medicinal Chemistry, 2008, 8, 331-349.	2.4	19
31	Interaction of piroxicam and meloxicam with DMPG/DMPC mixed vesicles: Anomalous partitioning behavior. Biophysical Chemistry, 2007, 125, 306-313.	2.8	18
32	Phosphatidylserine-Dependent Catalysis of Stalk and Pore Formation by Synaptobrevin JMR-TMD Peptide. Biophysical Journal, 2015, 109, 1863-1872.	0.5	18
33	Sensing Tryptophan Microenvironment of Amyloid Protein Utilizing Wavelength-Selective Fluorescence Approach. Journal of Fluorescence, 2017, 27, 1995-2000.	2.5	18
34	Host-guest complexation of eugenol in cyclodextrins for enhancing bioavailability. Journal of Molecular Liquids, 2020, 319, 114336.	4.9	18
35	Interaction of Oxicam NSAIDs with lipid monolayer: Anomalous dependence on drug concentration. Colloids and Surfaces B: Biointerfaces, 2009, 70, 157-161.	5.0	17
36	pH Alters PEG-Mediated Fusion of Phosphatidylethanolamine-Containing Vesicles. Biophysical Journal, 2014, 107, 1327-1338.	0.5	15

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37	Effect of Phosphatidylethanolamine and Oleic Acid on Membrane Fusion: Phosphatidylethanolamine Circumvents the Classical Stalk Model. Journal of Physical Chemistry B, 2021, 125, 13192-13202.	2.6	15
38	Influence of Eugenol on the Organization and Dynamics of Lipid Membranes: A Phase-Dependent Study. Langmuir, 2018, 34, 2344-2351.	3.5	14
39	Effect of counterion on the structural switchover and binding of piroxicam with sodium dodecyl sulfate (SDS) micelles. Journal of Colloid and Interface Science, 2005, 292, 265-270.	9.4	13
40	Characterization of structural conformers of Îº-casein utilizing fluorescence spectroscopy. International Journal of Biological Macromolecules, 2019, 131, 89-96.	7.5	13
41	Fusogenic Effect of Cholesterol Prevails over the Inhibitory Effect of a Peptide-Based Membrane Fusion Inhibitor. Langmuir, 2021, 37, 3477-3489.	3.5	13
42	A Simple Method for Correction of Circular Dichroism Spectra Obtained from Membrane-Containing Samples. Biochemistry, 2012, 51, 1005-1008.	2.5	12
43	The N-terminal Domain Allosterically Regulates Cleavage and Activation of the Epithelial Sodium Channel. Journal of Biological Chemistry, 2014, 289, 23029-23042.	3.4	12
44	The Transmembrane Domain Peptide of Vesicular Stomatitis Virus Promotes Both Intermediate and Pore Formation during PEG-Mediated Vesicle Fusion. Biophysical Journal, 2014, 107, 1318-1326.	0.5	11
45	Conformational transition of Îº-casein in micellar environment: Insight from the tryptophan fluorescence. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2017, 186, 99-104.	3.9	10
46	Fluorescence quenching by ionic liquid as a potent tool to study protein unfolding intermediates. Journal of Molecular Liquids, 2020, 312, 113408.	4.9	10
47	Protein-dependent Membrane Interaction of A Partially Disordered Protein Complex with Oleic Acid: Implications for Cancer Lipidomics. Scientific Reports, 2016, 6, 35015.	3.3	9
48	The role of fusion peptides in depth-dependent membrane organization and dynamics in promoting membrane fusion. Chemistry and Physics of Lipids, 2021, 234, 105025.	3.2	7
49	Organization and dynamics of Trp14 of hemagglutinin fusion peptide in membrane mimetic environment. Chemistry and Physics of Lipids, 2017, 205, 48-54.	3.2	6
50	Aggregation Behavior of pHLIP in Aqueous Solution at Low Concentrations: A Fluorescence Study. Journal of Fluorescence, 2018, 28, 967-973.	2.5	6
51	Cholesterol: A key player in membrane fusion that modulates the efficacy of fusion inhibitor peptides. Vitamins and Hormones, 2021, 117, 133-155.	1.7	6
52	Lipid Headgroup Charge Controls Melittin Oligomerization in Membranes: Implications in Membrane Lysis. Journal of Physical Chemistry B, 2021, 125, 8450-8459.	2.6	6
53	Exploring membrane viscosity at the headgroup region utilizing a hemicyanine-based fluorescent probe. Journal of Molecular Liquids, 2021, 325, 115152.	4.9	5
54	A Novel Assay for Detecting Fusion Pore Formation: Implications for the Fusion Mechanism. Biochemistry, 2013, 52, 8510-8517.	2.5	4

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55	New Functions of Old Drugs: Aureolic Acid Group of Anti-Cancer Antibiotics and Non-Steroidal Anti-Inflammatory Drugs. , 2014, , 3-55.		4
56	Differential sensitivity of pHLIP to ester and ether lipids. Chemistry and Physics of Lipids, 2020, 226, 104849.	3.2	4
57	Fluorescence-based techniques for the detection of the oligomeric status of proteins: implication in amyloidogenic diseases. European Biophysics Journal, 2021, 50, 671-685.	2.2	4
58	Combination of Oleic Acid and the gp41 Fusion Peptide Switches the Phosphatidylethanolamine-Induced Membrane Fusion Mechanism from a Nonclassical to a Classical Stalk Model. Journal of Physical Chemistry B, 2022, 126, 3673-3684.	2.6	4
59	Fluorescence-based ion sensing in lipid membranes: a simple method of sensing in aqueous medium with enhanced efficiency. RSC Advances, 2019, 9, 31030-31034.	3.6	1
60	Oligomerization of Fusion Proteins: A Common Symptom for Class I Viruses. , 2021, , 693-712.		1
61	Exploring the inclusion complex formation of 3-acetylcoumarin with Î²-cyclodextrin and its delivery to a carrier protein: A spectroscopic and computational study. Journal of Molecular Liquids, 2021, 344, 117752.	4.9	1
62	HA Fusion Peptide, but Not Two Biologically Inactive Mutants, Lowers Activation Barrier of the Pore Formation Step during PEG-mediated Fusion. Biophysical Journal, 2009, 96, 360a.	0.5	0
63	Fusion Peptide of Gp41 Self Associates in the Model Membrane and then Interacts with its Trans-Membrane Domain. Biophysical Journal, 2010, 98, 279a.	0.5	0
64	Effect of HIV Gp41 Fusion Peptide and its Cross-Linked Oligomers in Membrane Fusion. Biophysical Journal, 2010, 98, 674a.	0.5	0
65	Role of Anionic Lipids on Peg-Mediated Model Membrane Fusion. Biophysical Journal, 2011, 100, 635a.	0.5	0
66	Trans-Membrane Domain of HIV gp41 Interacts with the Externally Added gp41 Fusion Peptide: TMD-FP Complex Inhibits Model Membrane Fusion. Biophysical Journal, 2011, 100, 634a-635a.	0.5	0
67	Both Fusion Peptide and Trans-Membrane Domain of HIV gp41 Individually Reduce the Activation Barriers for the Fusion Process. Biophysical Journal, 2011, 100, 635a.	0.5	0
68	HIV gp41 Trans-Membrane Domain Promotes both Stalk and Fusion Pore Formation in Poly(Ethylene-) Glycol Mediated Membrane Fusion. Biophysical Journal, 2012, 102, 499a-500a.	0.5	0
69	Effect of Phosphatidylserine on Asymmetric Membrane Fusion. Biophysical Journal, 2012, 102, 501a.	0.5	0
70	Effects of Wild Type and Mutant HA Fusion Peptides on Kinetics and Activation Thermodynamics of Stalk and Pore Formation: Mechanistic Implications. Biophysical Journal, 2013, 104, 87a-88a.	0.5	0
71	A Novel Assay to Detect Fusion Pore Formation: Implication for Fluctuating Pore Formation. Biophysical Journal, 2013, 104, 87a.	0.5	0
72	Micellar dipolar rearrangement is sensitive to hydrophobic chain length: Implication for structural switchover of piroxicam. Chemistry and Physics of Lipids, 2016, 200, 120-125.	3.2	0

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73	Membrane cholesterol modulates the dynamics and depth of penetration of Îº-casein. Journal of Molecular Liquids, 2022, 363, 119849.	4.9	0