

# Parbati Biswas

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

81  
papers

1,163  
citations

18  
h-index

31  
g-index

89  
ext. papers

1,304  
ext. citations

3.5  
avg, IF

4.84  
L-index

#	Paper	IF	Citations
81	Predicting protein shelf lives from mean first passage times. <i>Chemical Physics Letters</i> , <b>2022</b> , 792, 1394262.	6.5	0
80	Segmental Mobility of Ring Polymers in Good and Poor Solvents. <i>Macromolecules</i> , <b>2022</b> , 55, 2182-2192	5.5	1
79	Hydration Thermodynamics of Familial Parkinson Disease-Linked Mutants of $\beta$ Synuclein. <i>Journal of Chemical Information and Modeling</i> , <b>2021</b> , 61, 1850-1858	6.1	2
78	Effect of ligand binding on riboswitch folding: Theory and simulations. <i>Journal of Chemical Physics</i> , <b>2021</b> , 154, 185101	3.9	1
77	Conformational Transitions of Amyloid- $\beta$ A Langevin and Generalized Langevin Dynamics Simulation Study. <i>ACS Omega</i> , <b>2021</b> , 6, 13611-13619	3.9	0
76	Intramolecular relaxation of ring polymers in dilute solutions. <i>Journal of Rheology</i> , <b>2021</b> , 65, 381-390	4.1	2
75	A generalized Langevin equation approach for barrier crossing dynamics in conformational transitions of proteins. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , <b>2021</b> , 2021, 063502	1.9	2
74	Conformations of ring polymers with excluded volume interactions. <i>Journal of Rheology</i> , <b>2021</b> , 65, 595-604	4.1	1
73	Hydration Thermodynamics of the N-Terminal FAD Mutants of Amyloid- $\beta$ <i>Journal of Chemical Information and Modeling</i> , <b>2021</b> , 61, 298-310	6.1	0
72	Effect of Alzheimer Disease Causative and Protective Mutations on the Hydration Environment of Amyloid- $\beta$ <i>Journal of Physical Chemistry B</i> , <b>2020</b> , 124, 2311-2322	3.4	3
71	Interaction Volume Is a Measure of the Aggregation Propensity of Amyloid- $\beta$ <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 3993-4000	6.4	5
70	Conformational properties of complexes of poly(propylene imine) dendrimers with linear polyelectrolytes in dilute solutions. <i>Journal of Chemical Physics</i> , <b>2020</b> , 153, 194902	3.9	1
69	Conformational transitions of a DNA hairpin through transition path times. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , <b>2020</b> , 2020, 073411	1.9	3
68	Conformations of poly(propylene imine) dendrimers in an ionic liquid at different pH. <i>Soft Matter</i> , <b>2020</b> , 16, 8400-8411	3.6	1
67	Orientalional Relaxation of Poly(propylene imine) Dendrimers at Different pH. <i>Journal of Physical Chemistry B</i> , <b>2020</b> , 124, 4193-4202	3.4	2
66	Effect of Correlated Pair Mutations in Protein Misfolding. <i>Journal of Physical Chemistry B</i> , <b>2019</b> , 123, 5069-5078	3.4	2
65	Orientalional relaxation of ring polymers in dilute solutions. <i>Soft Matter</i> , <b>2019</b> , 15, 5896-5907	3.6	4

64	Effect of site-directed point mutations on protein misfolding: A simulation study. <i>Proteins: Structure, Function and Bioinformatics</i> , <b>2019</b> , 87, 760-773	4.2	6
63	Unusual dynamics of hydration water around motor proteins with long-ranged hydrodynamic fluctuations. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2019</b> , 534, 122045	3.3	5
62	Theoretical and computational advances in protein misfolding. <i>Advances in Protein Chemistry and Structural Biology</i> , <b>2019</b> , 118, 1-31	5.3	1
61	Theory for the Dynamics of Polymer Grafted Nanoparticle in Solution. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 30657-30665	3.8	3
60	Estimating the mean first passage time of protein misfolding. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 5692-5698	3.6	3
59	Salt-bridge dynamics in intrinsically disordered proteins: A trade-off between electrostatic interactions and structural flexibility. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , <b>2018</b> , 1866, 624-641	4	14
58	Hydration Water Distribution around Intrinsically Disordered Proteins. <i>Journal of Physical Chemistry B</i> , <b>2018</b> , 122, 4206-4218	3.4	10
57	Hydration water dynamics around a protein surface: a first passage time approach. <i>Journal of Physics Condensed Matter</i> , <b>2018</b> , 30, 035101	1.8	2
56	Effect of pH on Size and Internal Structure of Poly(propylene imine) Dendrimers: A Molecular Dynamics Simulation Study. <i>Journal of Physical Chemistry B</i> , <b>2018</b> , 122, 9250-9263	3.4	18
55	Topology driven structural transition of dendrimers with a dimensional cross-over. <i>Polymer</i> , <b>2017</b> , 115, 118-127	3.9	5
54	Role of local and nonlocal interactions in folding and misfolding of globular proteins. <i>Journal of Chemical Physics</i> , <b>2017</b> , 146, 065102	3.9	5
53	Globular-disorder transition in proteins: a compromise between hydrophobic and electrostatic interactions?. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 23207-14	3.6	5
52	Dynamics of dendrimers with excluded volume: A comparison with experiments and simulations. <i>Journal of Rheology</i> , <b>2016</b> , 60, 111-120	4.1	10
51	Local Structure and Dynamics of Hydration Water in Intrinsically Disordered Proteins. <i>Journal of Physical Chemistry B</i> , <b>2015</b> , 119, 10858-67	3.4	34
50	Diffusion of Hydration Water around Intrinsically Disordered Proteins. <i>Journal of Physical Chemistry B</i> , <b>2015</b> , 119, 13262-70	3.4	39
49	Designing pH induced fold switch in proteins. <i>Journal of Chemical Physics</i> , <b>2015</b> , 142, 185102	3.9	5
48	Conformational Entropy of Intrinsically Disordered Proteins from Amino Acid Triads. <i>Scientific Reports</i> , <b>2015</b> , 5, 11740	4.9	26
47	Effect of excluded volume on the rheology and transport dynamics of randomly hyperbranched polymers. <i>Journal of Chemical Physics</i> , <b>2015</b> , 142, 174906	3.9	7

46	Designing sequences with varied flexibility and stability through pair mutations. <i>RSC Advances</i> , <b>2014</b> , 4, 8031	3.7	6
45	Shape dependence of the radial distribution function of hydration water around proteins. <i>Journal of Physics Condensed Matter</i> , <b>2014</b> , 26, 335102	1.8	6
44	Hydrogen bond dynamics in intrinsically disordered proteins. <i>Journal of Physical Chemistry B</i> , <b>2014</b> , 118, 3018-25	3.4	22
43	The role of site-directed point mutations in protein misfolding. <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 13964-73	3.6	7
42	Does lack of secondary structure imply intrinsic disorder in proteins? A sequence analysis. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , <b>2014</b> , 1844, 1827-34	4	8
41	Intramolecular relaxation of flexible dendrimers with excluded volume. <i>Journal of Chemical Physics</i> , <b>2014</b> , 141, 034902	3.9	11
40	Helical ambivalency induced by point mutations. <i>BMC Structural Biology</i> , <b>2013</b> , 13, 9	2.7	4
39	Orientalional relaxation in semiflexible dendrimers. <i>Physical Chemistry Chemical Physics</i> , <b>2013</b> , 15, 20294-302	3.3	16
38	Semiflexibility induced range of conformations in dendrimers. <i>Soft Matter</i> , <b>2013</b> , 9, 2375	3.6	9
37	Capturing molten globule state of $\beta$ -lactalbumin through constant pH molecular dynamics simulations. <i>Journal of Chemical Physics</i> , <b>2013</b> , 138, 095101	3.9	9
36	Conformation and intramolecular relaxation dynamics of semiflexible randomly hyperbranched polymers. <i>Journal of Chemical Physics</i> , <b>2013</b> , 138, 104902	3.9	11
35	Sulfur-containing angiotensin-converting enzyme inhibitor 3-thienylalanine-ornithyl-proline activates endothelial function and expression of genes involved in Renin-Angiotensin system. <i>Journal of Cardiovascular Pharmacology</i> , <b>2013</b> , 61, 311-7	3.1	3
34	Role of conformational heterogeneity on protein misfolding. <i>Soft Matter</i> , <b>2012</b> , 8, 4432	3.6	9
33	Hydrophobic moments, shape, and packing in disordered proteins. <i>Journal of Physical Chemistry B</i> , <b>2012</b> , 116, 6326-35	3.4	13
32	Conformational transitions in semiflexible dendrimers induced by bond orientations. <i>Journal of Chemical Physics</i> , <b>2012</b> , 137, 124903	3.9	25
31	Are ambivalent $\beta$ -helices entropically driven?. <i>Protein Engineering, Design and Selection</i> , <b>2012</b> , 25, 73-9	1.9	6
30	Local order and mobility of water molecules around ambivalent helices. <i>Journal of Physical Chemistry B</i> , <b>2011</b> , 115, 12257-65	3.4	8
29	Shape, flexibility and packing of proteins and nucleic acids in complexes. <i>Physical Chemistry Chemical Physics</i> , <b>2011</b> , 13, 9632-43	3.6	13

28	Role of foldability and stability in designing real protein sequences. <i>Physical Chemistry Chemical Physics</i> , <b>2011</b> , 13, 9223-31	3.6	
27	Designing misfolded proteins by energy landscaping. <i>Journal of Physical Chemistry B</i> , <b>2011</b> , 115, 113-9	3.4	8
26	Intramolecular relaxation dynamics in semiflexible dendrimers. <i>Journal of Chemical Physics</i> , <b>2011</b> , 134, 214901	3.9	30
25	Structure of hydration water in proteins: a comparison of molecular dynamics simulations and database analysis. <i>Biophysical Chemistry</i> , <b>2011</b> , 158, 73-80	3.5	29
24	Neutrality and evolvability of designed protein sequences. <i>Physical Review E</i> , <b>2010</b> , 82, 011906	2.4	3
23	Dynamics of Semiflexible Dendrimers in Dilute Solutions. <i>Macromolecules</i> , <b>2010</b> , 43, 7378-7385	5.5	31
22	Statistical analysis and molecular dynamics simulations of ambivalent $\beta$ helices. <i>BMC Bioinformatics</i> , <b>2010</b> , 11, 519	3.6	9
21	Position-specific propensities of amino acids in the $\beta$ strand. <i>BMC Structural Biology</i> , <b>2010</b> , 10, 29	2.7	27
20	Combinatorial design of protein sequences with applications to lattice and real proteins. <i>Journal of Chemical Physics</i> , <b>2009</b> , 131, 125101	3.9	5
19	Statistical theory of neutral protein evolution by random site mutations. <i>Journal of Chemical Sciences</i> , <b>2009</b> , 121, 887-896	1.8	
18	Effect of varying chain length between P(1) and P(1)W position of tripeptidomimics on activity of angiotensin-converting enzyme inhibitors. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2009</b> , 19, 4364-6	2.9	22
17	Statistical theory of protein sequence design by random mutation. <i>Journal of Physical Chemistry B</i> , <b>2009</b> , 113, 5520-7	3.4	10
16	Size, shape, and flexibility of proteins and DNA. <i>Journal of Chemical Physics</i> , <b>2009</b> , 131, 165104	3.9	28
15	Effect of 3-thienylalanine-ornithine-proline, new sulfur-containing angiotensin-converting enzyme inhibitor on blood pressure and oxidative stress in spontaneously hypertensive rats. <i>Journal of Cardiovascular Pharmacology</i> , <b>2009</b> , 53, 145-50	3.1	11
14	Structural patterns in alpha helices and beta sheets in globular proteins. <i>Protein and Peptide Letters</i> , <b>2009</b> , 16, 953-60	1.9	4
13	Statistical theory for protein ensembles with designed energy landscapes. <i>Journal of Chemical Physics</i> , <b>2005</b> , 123, 154908	3.9	19
12	Stretch dynamics of flexible dendritic polymers in solution. <i>Journal of Chemical Physics</i> , <b>2001</b> , 114, 2430-34	3.41	66
11	Polymer dynamics and topology: Extension of stars and dendrimers in external fields. <i>Macromolecular Theory and Simulations</i> , <b>2000</b> , 9, 56-67	1.5	71

10	Hydrodynamic effects on the extension of stars and dendrimers in external fields. <i>Macromolecular Theory and Simulations</i> , <b>2000</b> , 9, 608-620	1.5	34
9	Polymer dynamics and topology: Extension of stars and dendrimers in external fields <b>2000</b> , 9, 56		5
8	Hydrodynamic effects on the extension of stars and dendrimers in external fields <b>2000</b> , 9, 608		3
7	Dynamics of Entangled H-Polymers: Theory, Rheology, and Neutron-Scattering. <i>Macromolecules</i> , <b>1999</b> , 32, 6734-6758	5.5	241
6	Shapes of generalized random walks. <i>Journal of Chemical Physics</i> , <b>1996</b> , 104, 3360-3365	3.9	10
5	Polymers below the theta point: Renormalization group considerations. <i>Journal of Chemical Physics</i> , <b>1995</b> , 103, 7562-7568	3.9	3
4	Dynamics of Fractional Brownian Walks. <i>The Journal of Physical Chemistry</i> , <b>1995</b> , 99, 816-821		8
3	Chain dimensions near the critical point. <i>Journal of Chemical Physics</i> , <b>1994</b> , 100, 4665-4673	3.9	9
2	Radial dimensions of starburst polymers. <i>Journal of Chemical Physics</i> , <b>1994</b> , 100, 3201-3209	3.9	44
1	Path integral description of polymers using fractional Brownian walks. <i>Journal of Chemical Physics</i> , <b>1993</b> , 99, 9230-9236	3.9	18