

Binny J Cherayil

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.

47
papers

1,769
citations

16
h-index

42
g-index

52
ext. papers

1,909
ext. citations

4.1
avg, IF

4.43
L-index

#	Paper	IF	Citations
47	The relaxation dynamics of single flow-stretched polymers in semidilute to concentrated solutions. <i>Journal of Chemical Physics</i> , 2021 , 154, 024907	3.9	0
46	Particle dynamics in viscoelastic media: Effects of non-thermal white noise on barrier crossing rates.. <i>Journal of Chemical Physics</i> , 2021 , 155, 244903	3.9	1
45	Thermodynamic asymmetries in dual-temperature Brownian dynamics. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2020 , 2020, 113204	1.9	1
44	Fluctuation relations for flow-driven trapped colloids and implications for related polymeric systems. <i>European Physical Journal B</i> , 2019 , 92, 1	1.2	3
43	Stochastic thermodynamics of a harmonically trapped colloid in linear mixed flow. <i>Physical Review E</i> , 2019 , 100, 052124	2.4	2
42	Brownian motion under dynamic disorder: effects of memory on the decay of the non-Gaussianity parameter. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2018 , 2018, 033211	1.9	3
41	Anomalies in the coil-stretch transition of flexible polymers. <i>Journal of Chemical Physics</i> , 2018 , 148, 094903	3.9	4
40	Enhancement of target location rates by stochastic modulation of Brownian motion. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2018 , 2018, 063208	1.9	1
39	The Different Dimensions of Dimensional Analysis 2018 , 23, 641-661		
38	The effects of slit-like confinement on flow-induced polymer deformation. <i>Journal of Chemical Physics</i> , 2017 , 147, 064905	3.9	2
37	Non-Gaussian Brownian Diffusion in Dynamically Disordered Thermal Environments. <i>Journal of Physical Chemistry B</i> , 2017 , 121, 7204-7209	3.4	39
36	Polymer extension under flow: A path integral evaluation of the free energy change using the Jarzynski relation. <i>Journal of Chemical Physics</i> , 2016 , 144, 214902	3.9	8
35	Polymer extension under flow: Some statistical properties of the work distribution function. <i>Journal of Chemical Physics</i> , 2016 , 145, 204901	3.9	4
34	Dynamics of the reaction between the free end of a tethered self-avoiding polymer and a flat penetrable surface: a renormalization group study. <i>Journal of Chemical Physics</i> , 2014 , 140, 234902	3.9	
33	Michaelis and Menten at 100: Still going strong 2013 , 18, 969-995		1
32	Chain extension of a confined polymer in steady shear flow. <i>Journal of Chemical Physics</i> , 2012 , 137, 194906	3.9	5
31	Work fluctuations in an elastic dumbbell model of polymers in planar elongational flow. <i>Physical Review E</i> , 2011 , 83, 041805	2.4	9

30	Polymer melt dynamics: microscopic roots of fractional viscoelasticity. <i>Physical Review E</i> , 2010 , 81, 021804	3.4	12
29	Exact path-integral evaluation of the heat distribution function of a trapped brownian oscillator. <i>Physical Review E</i> , 2010 , 82, 051104	2.4	25
28	The dynamics of single enzyme reactions: A reconsideration of Kramersdmodel for colored noise processes. <i>Journal of Chemical Physics</i> , 2008 , 129, 075104	3.9	23
27	Dynamic disorder in single-molecule Michaelis-Menten kinetics: the reaction-diffusion formalism in the Wilemski-Fixman approximation. <i>Journal of Chemical Physics</i> , 2007 , 127, 105103	3.9	20
26	Complex chemical kinetics in single enzyme molecules: Kramersd model with fractional Gaussian noise. <i>Journal of Chemical Physics</i> , 2006 , 125, 24904	3.9	70
25	Approximate first passage time distribution for barrier crossing in a double well under fractional Gaussian noise. <i>Journal of Chemical Physics</i> , 2006 , 125, 114106	3.9	16
24	Ever-fluctuating single enzyme molecules: Michaelis-Menten equation revisited. <i>Nature Chemical Biology</i> , 2006 , 2, 87-94	11.7	608
23	Single-molecule Michaelis-Menten equations. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 19068-81	3.4	276
22	Fluctuating enzymes: lessons from single-molecule studies. <i>Accounts of Chemical Research</i> , 2005 , 38, 923-31	24.3	318
21	Semiflexible random AB block copolymers under tension. <i>Journal of Chemical Physics</i> , 2003 , 118, 1970-1978	3.9	3
20	Polymer dynamics in linear mixed flow. <i>Journal of Chemical Physics</i> , 2003 , 119, 5696-5700	3.9	14
19	Conformational properties of randomly flexible heteropolymers. <i>Journal of Chemical Physics</i> , 2002 , 116, 4330-4338	3.9	3
18	The thermodynamics of reversible cyclization in semiflexible polymers. <i>Journal of Chemical Physics</i> , 2002 , 117, 7765-7773	3.9	20
17	Anomalies in the self-diffusion coefficient near the critical point. <i>Journal of Chemical Physics</i> , 2002 , 116, 8455	3.9	6
16	The dynamics of chain closure in semiflexible polymers. <i>Journal of Chemical Physics</i> , 2002 , 116, 399	3.9	43
15	Entropy and the direction of natural change 2001 , 6, 82-93		
14	Quantum correction factors for multiphonon processes in condensed phase vibrational relaxation. <i>Journal of Chemical Physics</i> , 2001 , 115, 5536-5545	3.9	2
13	Effects of stiffness on the flow behavior of polymers. <i>Journal of Chemical Physics</i> , 2000 , 113, 10776-10783	3.9	14

12	Chain dynamics in steady shear flow. <i>Journal of Chemical Physics</i> , 2000 , 112, 8707-8714	3.9	25
11	The anomalous diffusion of polymers in random media. <i>Journal of Chemical Physics</i> , 2000 , 112, 421-427	3.9	6
10	Vibrational Lifetimes and Spectral Shifts in Supercritical Fluids as a Function of Density: Experiments and Theory. <i>Journal of Physical Chemistry B</i> , 2000 , 104, 2402-2414	3.4	44
9	An integral representation of isolated binary collisions in vibrational relaxation. <i>Journal of Chemical Physics</i> , 1999 , 111, 6471-6473	3.9	1
8	Polymer collapse in supercritical solvents. <i>Journal of Chemical Physics</i> , 1999 , 111, 3274-3277	3.9	23
7	Bond fluctuation model of polymers in random media. <i>Journal of Chemical Physics</i> , 1998 , 109, 7011-7016	3.9	4
6	Chain dimensions near the critical point. <i>Journal of Chemical Physics</i> , 1994 , 100, 4665-4673	3.9	9
5	Radial dimensions of starburst polymers. <i>Journal of Chemical Physics</i> , 1994 , 100, 3201-3209	3.9	44
4	Path integral description of polymers using fractional Brownian walks. <i>Journal of Chemical Physics</i> , 1993 , 99, 9230-9236	3.9	18
3	Stretched exponential relaxation in polymer dynamics. <i>Journal of Chemical Physics</i> , 1992 , 97, 2090-2094	3.9	15
2	Phase separation in solutions of binary polymer mixtures. <i>Journal of Chemical Physics</i> , 1992 , 96, 9173-9179	3.9	5
1	Phase separation in polymer solutions near the critical point. <i>Journal of Chemical Physics</i> , 1991 , 95, 2135-2142	3.9	19