Murugappan Muthukumar

List of Publications by Year in descending order

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299 papers

18,327 citations

71
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17055 122 g-index

319 all docs

319 docs citations

319 times ranked

10212 citing authors

#	Article	IF	CITATIONS
1	Competing Interactions and Levels of Ordering in Self-Organizing Polymeric Materials. Science, 1997, 277, 1225-1232.	6.0	701
2	Cononsolvency in mixed aqueous solutions of poly(N-isopropylacrylamide). Macromolecules, 1991, 24, 948-952.	2.2	493
3	Polymer translocation through a hole. Journal of Chemical Physics, 1999, 111, 10371-10374.	1.2	478
4	Configurational characteristics and scaling behavior of starburst molecules: a computational study. Macromolecules, 1990, 23, 2280-2288.	2.2	395
5	Theory of counter-ion condensation on flexible polyelectrolytes: Adsorption mechanism. Journal of Chemical Physics, 2004, 120, 9343-9350.	1.2	344
6	<i>>50th Anniversary Perspective</i> : A Perspective on Polyelectrolyte Solutions. Macromolecules, 2017, 50, 9528-9560.	2.2	332
7	Screening effect on viscoelasticity near the gel point. Macromolecules, 1989, 22, 4656-4658.	2.2	325
8	Translocation of a Confined Polymer through a Hole. Physical Review Letters, 2001, 86, 3188-3191.	2.9	323
9	Adsorption of a polyelectrolyte chain to a charged surface. Journal of Chemical Physics, 1987, 86, 7230-7235.	1.2	307
10	Entropy and enthalpy of polyelectrolyte complexation: Langevin dynamics simulations. Journal of Chemical Physics, 2006, 124, 154902.	1.2	280
11	Reaction-Controlled Morphology of Phase-Separating Mixtures. Physical Review Letters, 1995, 74, 2034-2037.	2.9	255
12	Polymer escape through a nanopore. Journal of Chemical Physics, 2003, 118, 5174-5184.	1.2	232
13	Tuning the Density Profile of Dendritic Polyelectrolytes. Macromolecules, 1998, 31, 5892-5897.	2.2	231
14	Electrostatic origin of the genome packing in viruses. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 17174-17178.	3.3	219
15	A trapped polymer chain in random porous media. Journal of Chemical Physics, 1987, 87, 3082-3088.	1.2	218
16	High-Bandwidth Protein Analysis Using Solid-State Nanopores. Biophysical Journal, 2014, 106, 696-704.	0.2	209
17	Mean-Field Theory for Diffusion-Limited Cluster Formation. Physical Review Letters, 1983, 50, 839-842.	2.9	207
18	Effects of entropic barriers on polymer dynamics. Macromolecules, 1989, 22, 1937-1941.	2.2	199

#	Article	IF	CITATIONS
19	Langevin dynamics simulations of early stage shish-kebab crystallization of polymers in extensional flow. Journal of Chemical Physics, 2003, 118, 6648-6655.	1.2	199
20	Langevin dynamics simulations of early-stage polymer nucleation and crystallization. Journal of Chemical Physics, 1998, 109, 2536-2542.	1.2	194
21	Molecular Mechanisms of Polymer Crystallization from Solution. Physical Review Letters, 2001, 87, 218302.	2.9	191
22	Knottedness in ring polymers. Physical Review Letters, 1991, 66, 2211-2214.	2.9	190
23	Dynamics of polymeric fractals. Journal of Chemical Physics, 1985, 83, 3161-3168.	1.2	183
24	Double screening in polyelectrolyte solutions: Limiting laws and crossover formulas. Journal of Chemical Physics, 1996, 105, 5183-5199.	1.2	171
25	Langevin dynamics simulation of counterion distribution around isolated flexible polyelectrolyte chains. Journal of Chemical Physics, 2002, 116, 9975-9982.	1.2	166
26	The size of a polymer in random media. Journal of Chemical Physics, 1988, 89, 2435-2441.	1.2	160
27	Dynamics of polyelectrolyte solutions. Journal of Chemical Physics, 1997, 107, 2619-2635.	1.2	160
28	Modeling polymer crystallization from solutions. Polymer, 2000, 41, 8833-8837.	1.8	153
29	Adsorption of polyelectrolytes onto curved surfaces. Journal of Chemical Physics, 1994, 100, 7796-7803.	1.2	151
30	Research in Macromolecular Science: Challenges and Opportunities for the Next Decade. Macromolecules, 2009, 42, 465-471.	2.2	145
31	The Electrostatic Expansion of Linear Polyelectrolytes:Â Effects of Gegenions, Co-ions, and Hydrophobicity. Macromolecules, 1997, 30, 8375-8385.	2.2	138
32	Monte Carlo study of adsorption of a polyelectrolyte onto charged surfaces. Journal of Chemical Physics, 1998, 109, 1522-1527.	1.2	138
33	Fractal dimension of a crosslinking polymer at the gel point. Macromolecules, 1986, 19, 1284-1285.	2.2	136
34	Diffusion of a polymer chain in random media. Macromolecules, 1989, 22, 1941-1946.	2.2	136
35	Theory of capture rate in polymer translocation. Journal of Chemical Physics, 2010, 132, 195101.	1.2	134
36	Mechanism of DNA Transport Through Pores. Annual Review of Biophysics and Biomolecular Structure, 2007, 36, 435-450.	18.3	133

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37	Langevin Dynamics Simulations of Genome Packing in Bacteriophage. Biophysical Journal, 2006, 91, 25-41.	0.2	132
38	Polymer capture by electro-osmotic flow of oppositely charged nanopores. Journal of Chemical Physics, 2007, 126, 164903.	1.2	132
39	Polyelectrolyte solutions with added salt: A simulation study. Journal of Chemical Physics, 2003, 119, 1813-1823.	1.2	128
40	Protein Transport through a Narrow Solid-State Nanopore at High Voltage: Experiments and Theory. ACS Nano, 2012, 6, 6236-6243.	7.3	126
41	Simulation of polymer translocation through protein channels. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 5273-5278.	3.3	123
42	Thermodynamics of polymer solutions. Journal of Chemical Physics, 1986, 85, 4722-4728.	1.2	122
43	Molecular modelling of nucleation in polymers. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2003, 361, 539-556.	1.6	119
44	Theory of competitive counterion adsorption on flexible polyelectrolytes: Divalent salts. Journal of Chemical Physics, 2008, 128, 244901.	1.2	115
45	Simulations of nucleation and elongation of amyloid fibrils. Journal of Chemical Physics, 2009, 130, 035102.	1.2	115
46	Dendrimerâ^Polyelectrolyte Complexation:Â A Model Guestâ^Host System. Macromolecules, 2000, 33, 6159-6167.	2.2	114
47	pH Tuning of DNA Translocation Time through Organically Functionalized Nanopores. ACS Nano, 2013, 7, 1408-1414.	7.3	114
48	Polymer translocation through \hat{l}_{\pm} -hemolysin pore with tunable polymer-pore electrostatic interaction. Journal of Chemical Physics, 2010, 133, 045101.	1.2	111
49	Fluctuation-Assisted Crystallization: In a Simultaneous Phase Separation and Crystallization Polyolefin Blend System. Macromolecular Rapid Communications, 2005, 26, 1285-1288.	2.0	110
50	Pattern formation in drying droplets of polyelectrolyte and salt. Journal of Chemical Physics, 2010, 133, 114905.	1.2	109
51	Commentary on theories of polymer crystallization. European Physical Journal E, 2000, 3, 199-202.	0.7	108
52	Polymer translocation through a nanopore. II. Excluded volume effect. Journal of Chemical Physics, 2004, 120, 3460-3466.	1.2	105
53	Processing Pathways Decide Polymer Properties at the Molecular Level. Macromolecules, 2019, 52, 7146-7156.	2.2	105
54	Extrapolation formulas for polymer solution properties. Journal of Chemical Physics, 1982, 76, 2720-2730.	1.2	103

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55	Modeling Polymer Crystallization. , 0, , 241-274.		102
56	Pattern recognition by polyelectrolytes. Journal of Chemical Physics, 1995, 103, 4723-4731.	1.2	101
57	Selfâ€entanglement in ring polymers. Journal of Chemical Physics, 1991, 95, 2873-2881.	1.2	100
58	Thermodynamics of isotopic polymer mixtures: Significance of local structural symmetry. Journal of Chemical Physics, 1988, 89, 535-544.	1.2	97
59	Perturbation theory for a polymer chain with excluded volume interaction. Journal of Chemical Physics, 1984, 80, 5839-5850.	1.2	95
60	Density functional theory of lamellar ordering in diblock copolymers. Macromolecules, 1991, 24, 4199-4205.	2.2	95
61	Self-consistent field theory of diblock copolymer melts at patterned surfaces. Journal of Chemical Physics, 1998, 109, 5101-5107.	1.2	95
62	Effects of surface roughness on adsorbed polymers. Journal of Chemical Physics, 1991, 94, 4062-4070.	1.2	92
63	Self-consistent field theory of surfaces with terminally attached chains. Macromolecules, 1989, 22, 965-973.	2.2	91
64	The nematic to isotropic transition of a liquid crystal in porous media. Journal of Chemical Physics, 1993, 98, 4850-4852.	1.2	87
65	Expansion of a polymer chain with excluded volume interaction. Journal of Chemical Physics, 1987, 86, 460-476.	1.2	85
66	Modeling of polynucleotide translocation through protein pores and nanotubes. Electrophoresis, 2002, 23, 2697-2703.	1.3	84
67	Confined thin film diblock copolymer in the presence of an electric field. Journal of Chemical Physics, 2001, 115, 1559-1564.	1.2	80
68	Brownian dynamics simulation of bead–rod chains under shear with hydrodynamic interaction. Journal of Chemical Physics, 1999, 111, 7614-7623.	1.2	79
69	Fluctuation theory of diblock copolymer/homopolymer blends and its effects on the Lifshitz point. Journal of Chemical Physics, 1997, 107, 5588-5608.	1.2	78
70	Langevin dynamics of semiflexible polyelectrolytes: Rod-toroid–globule-coil structures and counterion distribution. Journal of Chemical Physics, 2005, 123, 074905.	1.2	78
71	Langevin dynamics simulations of ds-DNA translocation through synthetic nanopores. Journal of Chemical Physics, 2007, 127, 015102.	1.2	77
72	Translocation frequency of double-stranded DNA through a solid-state nanopore. Physical Review E, 2016, 93, 022401.	0.8	75

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73	Entropy-induced frozen morphology in unstable polymer blends. Macromolecules, 1992, 25, 1716-1724.	2.2	74
74	Polyelectrolyte chain dimensions and concentration fluctuations near phase boundaries. Journal of Chemical Physics, 2003, 119, 4085-4098.	1,2	74
7 5	Small-angle neutron scattering from poly(vinyl alcohol)-borate gels. Polymer, 1992, 33, 2883-2890.	1.8	73
76	Characterization of silk-hyaluronic acid composite hydrogels towards vitreous humor substitutes. Biomaterials, 2020, 233, 119729.	5.7	73
77	On the Stokes problem for a suspension of spheres at finite concentrations. Journal of Chemical Physics, 1978, 68, 2088-2096.	1.2	72
78	Dynamics of phase separation in a binary polymer blend of critical composition. Journal of Chemical Physics, 1990, 92, 6899-6909.	1.2	71
79	Communication: Theory of melt-memory in polymer crystallization. Journal of Chemical Physics, 2016, 145, 031105.	1.2	71
80	Structure Development during Crystallization of Homogeneous Copolymers of Ethene and 1-Octene:Â Time-Resolved Synchrotron X-ray and SALS Measurements. Macromolecules, 1999, 32, 765-770.	2.2	70
81	Polyelectrolyte complex coacervation by electrostatic dipolar interactions. Journal of Chemical Physics, 2018, 149, 163308.	1.2	69
82	Theory of volume transition in polyelectrolyte gels with charge regularization. Journal of Chemical Physics, 2012, 136, 134901.	1.2	66
83	Theory of Concentration Dependence of Polymer Relaxation Times in Dilute Solutions. Macromolecules, 1978, 11, 843-852.	2.2	64
84	Concentration dependence of diffusion controlled processes among static traps. Journal of Chemical Physics, 1982, 76, 2667-2671.	1.2	64
85	Analysis of the crystalline phase transformation of poly(vinylidene fluoride). Macromolecules, 1985, 18, 2583-2587.	2.2	63
86	Sequence Dependence of Conformations of Polyampholytes. Macromolecules, 1996, 29, 2324-2326.	2.2	63
87	Localization of a polymeric manifold in quenched random media. Journal of Chemical Physics, 1989, 90, 4594-4603.	1.2	62
88	Screening concepts in polymer solution dynamics. Polymer, 1982, 23, 345-348.	1.8	60
89	Shear-induced morphological structures in triblock copolymers. Macromolecules, 1993, 26, 5271-5273.	2.2	60
90	Interactions between Antimicrobial Polynorbornenes and Phospholipid Vesicles Monitored by Light Scattering and Microcalorimetry. Langmuir, 2008, 24, 12489-12495.	1.6	60

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91	Effect of patterned surface on diblock-copolymer melts and polymer blends near the critical point. Journal of Chemical Physics, 1997, 107, 9640-9644.	1.2	59
92	Phase separation of polymer blend films near patterned surfaces. Journal of Chemical Physics, 1999, 111, 2259-2269.	1.2	58
93	Brownian dynamics simulations of bead-rod-chain in simple shear flow and elongational flow. Polymer, 2004, 45, 1383-1389.	1.8	58
94	Polymer translocation through a cylindrical channel. Journal of Chemical Physics, 2008, 128, 154903.	1.2	58
95	Effective Charge and Coilâ 'Globule Transition of a Polyelectrolyte Chain. Macromolecules, 2010, 43, 2574-2581.	2.2	58
96	Polyelectrolyte adsorption on heterogeneously charged surfaces. Journal of Chemical Physics, 2000, 112, 8723-8729.	1.2	57
97	Communication: Charge, diffusion, and mobility of proteins through nanopores. Journal of Chemical Physics, 2014, 141, 081104.	1.2	57
98	Huggins Coefficient for Polymer Solutions with Excluded Volume. Macromolecules, 1977, 10, 899-906.	2.2	56
99	Spinodal decomposition in polymer mixtures. Physical Review Letters, 1989, 63, 2072-2075.	2.9	56
100	Electrostatic Effect on the Solution Structure and Dynamics of PEDOT:PSS. Macromolecules, 2016, 49, 4286-4294.	2.2	56
101	Entropic barrier model for polymer diffusion in concentrated polymer solutions and random media. Journal of Non-Crystalline Solids, 1991, 131-133, 654-666.	1.5	55
102	Evidence for entropic barrier transport of linear, star, and ring macromolecules in electrophoresis gels. Macromolecules, 1992, 25, 6696-6698.	2.2	55
103	Dimensions of polyelectrolyte chains and concentration fluctuations in semidilute solutions of sodium–poly(styrene sulfonate) as measured by small-angle neutron scattering. Polymer, 2001, 42, 8935-8946.	1.8	55
104	Threading synthetic polyelectrolytes through protein pores. Journal of Chemical Physics, 2007, 126, 051101.	1,2	53
105	Influence of Dipole Orientation on Solution Properties of Polyzwitterions. ACS Macro Letters, 2016, 5, 118-122.	2.3	53
106	Threeâ€body hydrodynamic effects on viscosity of suspensions of spheres. Journal of Chemical Physics, 1991, 94, 5180-5189.	1.2	52
107	Theory of spinodal decomposition assisted crystallization in binary mixtures. Journal of Chemical Physics, 2010, 132, .	1.2	52
108	Collapse of Linear Polyelectrolyte Chains in a Poor Solvent: When Does a Collapsing Polyelectrolyte Collect its Counterions?. Macromolecules, 2008, 41, 9352-9358.	2.2	51

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109	Electrostatic effects in collagen fibril formation. Journal of Chemical Physics, 2018, 149, 163333.	1.2	50
110	Phase Diagram of Polyelectrolyte Solutions:Â Weak Polymer Effect. Macromolecules, 2002, 35, 9142-9145.	2.2	49
111	Nucleation in Polymer Crystallization. Advances in Chemical Physics, 2004, , 1-63.	0.3	49
112	Electroosmotic Flow Reversal Outside Glass Nanopores. Nano Letters, 2015, 15, 695-702.	4.5	49
113	Critical wetting in twoâ€component polymer blends. Journal of Chemical Physics, 1989, 90, 5749-5755.	1.2	48
114	Polyelectrolyte Brush Density Profiles. Macromolecules, 1995, 28, 6608-6617.	2.2	48
115	Ordinary–extraordinary transition in dynamics of solutions of charged macromolecules. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 12627-12632.	3.3	48
116	Monte Carlo simulations of single crystals from polymer solutions. Journal of Chemical Physics, 2007, 126, 234904.	1.2	47
117	Synthesis and Characterization of Polyolefin-graft-oligopeptide Polyelectrolytes. Macromolecules, 2007, 40, 7617-7624.	2.2	47
118	Concentration dependence of diffusion-controlled processes among stationary reactive sinks. Journal of Statistical Physics, 1981, 26, 453-469.	0.5	46
119	Langevin dynamics simulation of polymer-assisted virus-like assembly. Journal of Chemical Physics, 2012, 136, 135101.	1.2	46
120	Temperature Effect on Ionic Current and ssDNA Transport through Nanopores. Biophysical Journal, 2015, 109, 1600-1607.	0.2	45
121	Artificial Protein Block Copolymers Blocks Comprising Two Distinct Selfâ€Assembling Domains. ChemBioChem, 2009, 10, 2733-2735.	1.3	44
122	Brownian dynamics of polymer solutions. Macromolecules, 1984, 17, 586-596.	2.2	43
123	Configurational properties of a single semiflexible polyelectrolyte. Journal of Chemical Physics, 2001, 115, 4367-4375.	1.2	43
124	Microphase separation in polyelectrolytic diblock copolymer melt: Weak segregation limit. Journal of Chemical Physics, 2007, 126, 214902.	1.2	43
125	Electrostatics of capsid-induced viral RNA organization. Journal of Chemical Physics, 2009, 131, .	1.2	43
126	Collapse transition of a stiff chain. Journal of Chemical Physics, 1984, 81, 6272-6276.	1.2	42

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127	Statistical mechanics of solutions of semiflexible chains: A path integral formulation. Journal of Chemical Physics, 1987, 86, 411-418.	1.2	42
128	Enhanced Phase Segregation Induced by Dipolar Interactions in Polymer Blends. Macromolecules, 2014, 47, 6491-6502.	2.2	42
129	Fluctuation effects in the density functional theory of order-disorder transitions in block copolymers. Macromolecules, 1993, 26, 5259-5261.	2.2	41
130	Theory of electrophoretic mobility of a polyelectrolyte in semidilute solutions of neutral polymers. Electrophoresis, 1996, 17, 1167-1172.	1.3	41
131	Theory of sequence effects on DNA translocation through proteins and nanopores. Electrophoresis, 2002, 23, 1417.	1.3	41
132	Phase behavior of polyelectrolyte solutions with salt. Journal of Chemical Physics, 2009, 130, 024904.	1.2	40
133	Origin of translocation barriers for polyelectrolyte chains. Journal of Chemical Physics, 2009, 131, 194903.	1.2	40
134	Charge regularization in phase separating polyelectrolyte solutions. Journal of Chemical Physics, 2010, 132, 084901.	1.2	40
135	Dynamics of driven polymer transport through a nanopore. Nature Physics, 2021, 17, 1043-1049.	6.5	40
136	Screening of hydrodynamic interaction in a solution of rodlike macromolecules. Macromolecules, 1983, 16, 1475-1478.	2.2	39
137	Effect of charge patterns along a solid-state nanopore on polyelectrolyte translocation. Journal of Chemical Physics, 2014, 140, 135102.	1.2	39
138	Modeling competitive substitution in a polyelectrolyte complex. Journal of Chemical Physics, 2015, 143, 243133.	1.2	39
139	Annihilation kinetics of liquid crystal defects. Journal of Chemical Physics, 1997, 106, 7822-7828.	1.2	38
140	Simulations of Stochastic Sensing of Proteins. Journal of the American Chemical Society, 2005, 127, 18252-18261.	6.6	37
141	Interpenetration of Interacting Polyelectrolytes. Macromolecules, 1994, 27, 1461-1465.	2.2	36
142	Localized structures of polymers with longâ€range interactions. Journal of Chemical Physics, 1996, 104, 691-700.	1.2	36
143	Monte Carlo studies of adsorption of a sequenced polyelectrolyte to patterned surfaces. Journal of Chemical Physics, 2002, 117, 5354-5360.	1.2	36
144	The influence of shear on the ordering temperature of a triblock copolymer melt. Journal of Chemical Physics, 1996, 104, 1589-1599.	1.2	35

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145	Scattering Studies on Poly(3,4-ethylenedioxythiophene)–Polystyrenesulfonate in the Presence of Ionic Liquids. Macromolecules, 2015, 48, 8989-8997.	2.2	35
146	On the Stokes problem for a suspension of spheres at nonzero concentrations. II. Calculations for effective medium theory. Journal of Chemical Physics, 1979, 70, 5875-5887.	1.2	34
147	The effects of attractive and repulsive interaction on twoâ€dimensional reactionâ€limited aggregation. Journal of Chemical Physics, 1989, 91, 3212-3221.	1.2	34
148	Density functional theory of phase transitions in diblock copolymer systems. Macromolecules, 1993, 26, 3908-3916.	2.2	34
149	Lower Critical Solution Temperature Behavior in Polyelectrolyte Complex Coacervates. Macromolecules, 2019, 52, 6998-7004.	2.2	34
150	Dynamics and hydrodynamics of suspensions of translational–rotational Brownian particles at finite concentrations. Journal of Chemical Physics, 1978, 69, 2657.	1.2	33
151	Pattern recognition in self-assembly. Current Opinion in Colloid and Interface Science, 1998, 3, 48-54.	3.4	33
152	Chain entropy: Spoiler or benefactor in pattern recognition?. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 11690-11692.	3.3	33
153	A computer simulation for the aggregation of associating polymers. Macromolecules, 1987, 20, 1999-2003.	2.2	31
154	Phase separation kinetics of polyelectrolyte solutions. Journal of Chemical Physics, 2007, 127, 244908.	1.2	31
155	Counterion Adsorption on Flexible Polyelectrolytes: Comparison of Theories. Macromolecules, 2009, 42, 1370-1379.	2.2	31
156	Scaling Theory of Polymer Translocation into Confined Regions. Biophysical Journal, 2008, 95, 3619-3627.	0.2	30
157	Cluster theory for concentration dependence of shear viscosity for suspensions of interacting spheres. I. Journal of Chemical Physics, 1982, 76, 6186-6194.	1.2	29
158	Single Chain Entanglement:Â A Monte Carlo Simulation of Dilute Solution Capillary Electrophoresis. Macromolecules, 1998, 31, 5495-5501.	2.2	29
159	Polyelectrolyte Electrophoresis in a Dilute Solution of Neutral Polymers:Â Model Studies. Macromolecules, 2000, 33, 1245-1253.	2.2	29
160	Continuum theory of polymer crystallization. Journal of Chemical Physics, 2007, 126, 144901.	1.2	29
161	Electrostatic correlations in polyelectrolyte solutions. Polymer Science - Series A, 2016, 58, 852-863.	0.4	29
162	Role of non-equilibrium conformations on driven polymer translocation. Journal of Chemical Physics, 2018, 148, 024903.	1.2	29

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163	Brownian motion and polymer statistics on certain curved manifolds. Physical Review E, 1998, 57, 4411-4419.	0.8	28
164	Dynamic mechanical properties of poly(.gammabenzyl Lalphaglutamate) gels in benzyl alcohol. Macromolecules, 1987, 20, 564-569.	2.2	27
165	Effect of shear on order–disorder and order–order transitions in block copolymers. Journal of Chemical Physics, 1997, 107, 5561-5568.	1.2	27
166	Attractive interactions and phase transitions in solutions of similarly charged rod-like polyelectrolytes. Journal of Chemical Physics, 1999, 111, 1765-1777.	1.2	27
167	Translocation of a heterogeneous polymer. Journal of Chemical Physics, 2012, 137, 064904.	1.2	27
168	Polymer capture by α-hemolysin pore upon salt concentration gradient. Journal of Chemical Physics, 2014, 140, 015101.	1.2	27
169	Elasticity at Swelling Equilibrium of Ultrasoft Polyelectrolyte Gels: Comparisons of Theory and Experiments. Macromolecules, 2017, 50, 2456-2466.	2.2	27
170	Langevin dynamics simulation of crystallization of ring polymers. Journal of Chemical Physics, 2018, 148, 244904.	1.2	27
171	Dynamic light scattering studies of ionic and nonionic polymer gels with continuous and discontinuous volume transitions. Journal of Polymer Science, Part B: Polymer Physics, 2010, 48, 2193-2206.	2.4	26
172	Spinodal decomposition of symmetric diblock copolymer/homopolymer blends at the Lifshitz point. Journal of Chemical Physics, 1999, 110, 4079-4089.	1.2	24
173	Topologically frustrated dynamics of crowded charged macromolecules in charged hydrogels. Nature Communications, 2018, 9, 2248.	5 . 8	24
174	Effect of Deprotection Extent on Swelling and Dissolution Regimes of Thin Polymer Films. Langmuir, 2006, 22, 10009-10015.	1.6	23
175	Stochastic resonance during a polymer translocation process. Journal of Chemical Physics, 2016, 144, 144901.	1.2	23
176	Size-dependent forced PEG partitioning into channels: VDAC, OmpC, and $\hat{l}\pm$ -hemolysin. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9003-9008.	3.3	23
177	Effect of Salt on the Ordinary–Extraordinary Transition in Solutions of Charged Macromolecules. Journal of the American Chemical Society, 2019, 141, 5886-5896.	6.6	23
178	Cluster expansion for concentration dependence of selfâ€friction coefficients for suspensions of interacting spheres. Journal of Chemical Physics, 1983, 78, 497-510.	1.2	22
179	Concentration dependent relaxation times of linear polymers in dilute solutions. Macromolecules, 1984, 17, 971-973.	2.2	22
180	Density profiles of simulated comburst molecules. Macromolecules, 1991, 24, 4892-4897.	2.2	22

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181	Electrostatic Control of Polymer Translocation Speed through α-Hemolysin Protein Pore. Macromolecules, 2016, 49, 9132-9138.	2.2	22
182	Coupling Between Adsorption and the Helix-Coil Transition. Physical Review Letters, 1999, 82, 5405-5408.	2.9	21
183	Phase transitions in solutions of semiflexible polyelectrolytes. Journal of Chemical Physics, 2002, 116, 5299.	1.2	21
184	Confinement free energy of flexible polyelectrolytes in spherical cavities. Journal of Chemical Physics, 2008, 128, 184902.	1.2	21
185	Determination of Molecular Weights in Polyelectrolyte Mixtures Using Polymer Translocation through a Protein Nanopore. ACS Macro Letters, 2014, 3, 911-915.	2.3	20
186	Development of a Vitreous Substitute: Incorporating Charges and Fibrous Structures in Synthetic Hydrogel Materials. Macromolecules, 2016, 49, 4619-4626.	2.2	20
187	Theory of electrophoretic mobility of polyelectrolyte chains. Macromolecular Theory and Simulations, 1994, 3, 61-71.	0.6	19
188	Enzyme-Modulated DNA Translocation through a Nanopore. Journal of the American Chemical Society, 2009, 131, 18563-18570.	6.6	19
189	Microstructural Organization in α-Synuclein Solutions. Macromolecules, 2022, 55, 4228-4236.	2.2	19
190	Configurations of liquid crystalline polymers in nematic solvents. Journal of Chemical Physics, 1998, 109, 11117-11128.	1.2	18
191	Chiral Symmetry Breaking in Crystals of Achiral Polymers. Physical Review Letters, 2010, 105, 107801.	2.9	18
192	Encapsulation of a polyelectrolyte chain by an oppositely charged spherical surface. Journal of Chemical Physics, 2011, 135, 194901.	1.2	18
193	Ratchet rectification effect on the translocation of a flexible polyelectrolyte chain. Journal of Chemical Physics, 2016, 145, 084906.	1.2	18
194	Diffusion of Polyelectrolytes in Polyelectrolyte Gels. Macromolecules, 2017, 50, 8158-8168.	2.2	18
195	Theory of Charged Gels: Swelling, Elasticity, and Dynamics. Gels, 2021, 7, 49.	2.1	18
196	On the influence of nonrandom sequential coupling on radiationless relaxation processes. Journal of Chemical Physics, 1978, 69, 1619-1625.	1.2	17
197	The response of semiflexible liquid crystals to quenched random disorder. Journal of Chemical Physics, 1992, 97, 578-585.	1.2	17
198	Stretchâ€collapse transition of polyelectrolyte brushes in a poor solvent. Journal of Chemical Physics, 1996, 105, 11335-11346.	1.2	17

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199	Theory of viscoelastic properties of polyelectrolyte solutions. Polymer, 2001, 42, 5921-5923.	1.8	17
200	Counterion adsorption theory of dilute polyelectrolyte solutions: Apparent molecular weight, second virial coefficient, and intermolecular structure factor. Journal of Chemical Physics, 2012, 137, 034902.	1.2	17
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