Jack Douglas

List of Publications by Year
in descending order

299 papers	17,920 citations	13827 67 h-index	17546 121 g-index
302 all docs	302 docs citations	302 times ranked	13018 citing authors

#	Article	IF	Citations
1	Anisotropic self-assembly of spherical polymer-grafted nanoparticles. Nature Materials, 2009, 8, 354-359.	13.3	925
2	Interaction of Gold Nanoparticles with Common Human Blood Proteins. ACS Nano, 2010, 4, 365-379.	7.3	863
3	Stringlike Cooperative Motion in a Supercooled Liquid. Physical Review Letters, 1998, 80, 2338-2341.	2.9	846
4	Spinodal Dewetting of Thin Polymer Films. Physical Review Letters, 1998, 81, 1251-1254.	2.9	576
5	Thermal Degradation and Flammability Properties of Poly(propylene)/Carbon Nanotube Composites. Macromolecular Rapid Communications, 2002, 23, 761-765.	2.0	482
6	Characterization of branching architecture through "universal" ratios of polymer solution properties. Macromolecules, 1990, 23, 4168-4180.	2.2	304
7	What Do We Learn from the Local Geometry of Glass-Forming Liquids?. Physical Review Letters, 2002, 89, 125501.	2.9	251
8	The relationship of dynamical heterogeneity to the Adam-Gibbs and random first-order transition theories of glass formation. Journal of Chemical Physics, 2013, 138, 12A541.	1.2	224
9	Model for the Viscosity of Particle Dispersions. Journal of Macromolecular Science - Reviews in Macromolecular Chemistry and Physics, 1999, 39, 561-642.	2.2	215
10	Origin of particle clustering in a simulated polymer nanocomposite and its impact on rheology. Journal of Chemical Physics, 2003, 119, 1777-1788.	1.2	213
11	â€œGel-likeâ€•Mechanical Reinforcement in Polymer Nanocomposite Melts. Macromolecules, 2010, 43, 1003-1010.	2.2	209
12	Interfacial mobility scale determines the scale of collective motion and relaxation rate in polymer films. Nature Communications, 2014, 5, 4163.	5.8	202
13	Self-assembly of patchy particles into polymer chains: A parameter-free comparison between Wertheim theory and Monte Carlo simulation. Journal of Chemical Physics, 2007, 126, 194903.	1.2	199
14	The effect of nanoparticle shape on polymer-nanocomposite rheology and tensile strength. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 1882-1897.	2.4	198
15	Neutron Reflectivity Study of the Density Profile of a Model End-Grafted Polymer Brush: Influence of Solvent Quality. Physical Review Letters, 1994, 73, 3407-3410.	2.9	194
16	Dimensional Crossover in the Phase Separation Kinetics of Thin Polymer Blend Films. Physical Review Letters, 1996, 76, 4368-4371.	2.9	190
17	Phase-Separation-Induced Surface Patterns in Thin Polymer Blend Films. Macromolecules, 1998, 31, 857-862.	2.2	187
18	Modifying Fragility and Collective Motion in Polymer Melts with Nanoparticles. Physical Review Letters, 2011, 106, 115702.	2.9	187

#	Article	IF	Citations
19	Influence of Confinement on the Fragility of Antiplasticized and Pure Polymer Films. Physical Review Letters, 2006, 97, 045502.	2.9	181
20	Quantitative relations between cooperative motion, emergent elasticity, and free volume in model glass-forming polymer materials. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2966-2971.	3.3	171
21	Î²-Relaxation governs protein stability in sugar-glass matrices. Soft Matter, 2012, 8, 2983.	1.2	170
22	Orientational Order in Block Copolymer Films Zone Annealed below the Orderâ^'Disorder Transition Temperature. Nano Letters, 2007, 7, 2789-2794.	4.5	169
23	Grain boundaries exhibit the dynamics of glass-forming liquids. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 7735-7740.	3.3	164
24	Influence of counterion valency on the scattering properties of highly charged polyelectrolyte solutions. Journal of Chemical Physics, 2001, 114, 3299-3313.	1.2	161
25	The conundrum of gel formation by molecular nanofibers, wormlike micelles, and filamentous proteins: gelation without cross-links?. Soft Matter, 2012, 8, 8539.	1.2	159
26	Fragility and cooperative motion in a glass-forming polymerâ€"nanoparticle composite. Soft Matter, 2013, 9, 241-254.	1.2	159
27	The Glass Transition Temperature of Polymer Melts. Journal of Physical Chemistry B, 2005, 109, 21285-21292.	1.2	157
28	A Simple Kinetic Model of Polymer Adsorption and Desorption. Science, 1993, 262, 2010-2012.	6.0	153
29	Semiempirical theory of relaxation: concentrated polymer solution dynamics. Macromolecules, 1991, 24, 3163-3177.	2.2	146
30	Hydrodynamic friction of arbitrarily shaped Brownian particles. Physical Review E, 1993, 47, R2983-R2986.	0.8	143
31	Phase separation of ultrathin polymer-blend films on patterned substrates. Physical Review E, 1998, 57, R6273-R6276.	0.8	141
32	Symmetry, equivalence, and molecular self-assembly. Physical Review E, 2006, 73, 031502.	0.8	141
33	Intrinsic viscosity and the electrical polarizability of arbitrarily shaped objects. Physical Review E, 2001, 64, 061401.	0.8	132
34	Renormalization and the two-parameter theory. Macromolecules, 1984, 17, 2344-2354.	2.2	124
35	Gelation in Physically Associating Polymer Solutions. Physical Review Letters, 2001, 87, .	2.9	120
36	String model for the dynamics of glass-forming liquids. Journal of Chemical Physics, 2014, 140, 204509.	1.2	120

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37	Thermal and mass diffusion in a semidilute good solvent-polymer solution. Journal of Chemical Physics, 1999, 111, 2270-2282.	1.2	119
38	A unifying framework to quantify the effects of substrate interactions, stiffness, and roughness on the dynamics of thin supported polymer films. Journal of Chemical Physics, 2015, 142, 234907.	1.2	118
39	Tuning polymer melt fragility with antiplasticizer additives. Journal of Chemical Physics, 2007, 126, 234903.	1.2	115
40	Lattice model of living polymerization. I. Basic thermodynamic properties. Journal of Chemical Physics, 1999, 111, 7116-7130.	1.2	114
41	Local variation of fragility and glass transition temperature of ultra-thin supported polymer films. Journal of Chemical Physics, 2012, 137, 244901.	1.2	112
42	Generalized localization model of relaxation in glass-forming liquids. Soft Matter, 2012, 8, 11455.	1.2	106
43	Excitation of Surface Deformation Modes of a Phase-Separating Polymer Blend on a Patterned Substrate. Macromolecules, 1999, 32, 2356-2364.	2.2	99
44	Antiplasticization and the elastic properties of glass-forming polymer liquids. Soft Matter, 2010, 6, 292-304.	1.2	97
45	Role of string-like collective atomic motion on diffusion and structural relaxation in glass forming Cu-Zr alloys. Journal of Chemical Physics, 2015, 142, 164506.	1.2	97
46	Bound Layers â€œCloakâ€•Nanoparticles in Strongly Interacting Polymer Nanocomposites. ACS Nano, 2016, 10, 10960-10965.	7.3	96
47	Application of the entropy theory of glass formation to poly(Î±-olefins). Journal of Chemical Physics, 2009, 131, 114905.	1.2	93
48	Filler-induced composition waves in phase-separating polymer blends. Physical Review E, 1999, 60, 5812-5822.	0.8	89
49	Energy-Renormalization for Achieving Temperature Transferable Coarse-Graining of Polymer Dynamics. Macromolecules, 2017, 50, 8787-8796.	2.2	89
50	Influence of Ion Solvation on the Properties of Electrolyte Solutions. Journal of Physical Chemistry B, 2018, 122, 4029-4034.	1.2	88
51	Lattice model of equilibrium polymerization. IV. Influence of activation, chemical initiation, chain scission and fusion, and chain stiffness on polymerization and phase separation. Journal of Chemical Physics, 2003, 119, 12645-12666.	1.2	87
52	Combinatorial Measurements of Crystallization Growth Rate and Morphology in Thin Films of Isotactic Polystyrene. Langmuir, 2003, 19, 3935-3940.	1.6	85
53	Equilibrium polymerization in the Stockmayer fluid as a model of supermolecular self-organization. Physical Review E, 2005, 71, 031502.	0.8	85
54	Intrinsic Viscosity and the Polarizability of Particles Having a Wide Range of Shapes. Advances in Chemical Physics, 2007, , 85-153.	0.3	85

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55	Surface Morphology Diagram for Cylinder-Forming Block Copolymer Thin Films. ACS Nano, 2008, 2, 2331-2341.	7.3	82
56	Communication: When does a branched polymer become a particle?. Journal of Chemical Physics, 2015, 143, 111104.	1.2	80
57	Communication: Cosolvency and cononsolvency explained in terms of a Flory-Huggins type theory. Journal of Chemical Physics, 2015, 143, 131101.	1.2	79
58	Critical Examination of the Colloidal Particle Model of Globular Proteins. Biophysical Journal, 2015, 108, 724-737.	0.2	77
59	Plasticization and antiplasticization of polymer melts diluted by low molar mass species. Journal of Chemical Physics, 2010, 132, 084504.	1.2	76
60	Does equilibrium polymerization describe the dynamic heterogeneity of glass-forming liquids?. Journal of Chemical Physics, 2006, 125, 144907.	1.2	75
61	Lattice model of living polymerization. III. Evidence for particle clustering from phase separation properties and â€œroundingâ€•of the dynamical clustering transition. Journal of Chemical Physics, 2000, 113, 434-446.	1.2	74
62	Growth pulsations in symmetric dendritic crystallization in thin polymer blend films. Physical Review E, 2002, 65, 051606.	0.8	71
63	Molecular simulation of the swelling of polyelectrolyte gels by monovalent and divalent counterions. Journal of Chemical Physics, 2008, 129, 154902.	1.2	71
64	Glass formation and stability of polystyreneâ€“fullerene nanocomposites. Journal of Molecular Liquids, 2010, 153, 79-87.	2.3	70
65	String-like cooperative motion in homogeneous melting. Journal of Chemical Physics, 2013, 138, 12A538.	1.2	69
66	Effect of residual interactions on polymer properties near the theta point. Journal of Chemical Physics, 1985, 83, 5293-5310.	1.2	67
67	Langmuir Adsorption Study of the Interaction of CdSe/ZnS Quantum Dots with Model Substrates: Influence of Substrate Surface Chemistry and pH. Langmuir, 2009, 25, 443-450.	1.6	67
68	Lattice model of equilibrium polymerization. VII. Understanding the role of â€œcooperativityâ€•in self-assembly. Journal of Chemical Physics, 2008, 128, 224901.	1.2	65
69	Influence of Cohesive Energy on the Thermodynamic Properties of a Model Glass-Forming Polymer Melt. Macromolecules, 2016, 49, 8341-8354.	2.2	65
70	Dielectric study of the antiplasticization of trehalose by glycerol. Physical Review E, 2006, 74, 031501.	0.8	64
71	Transport Properties of Rodlike Particles. Macromolecules, 2008, 41, 5422-5432.	2.2	64
72	Incoherent Neutron Scattering and the Dynamics of Confined Polycarbonate Films. Physical Review Letters, 2002, 88, 037401.	2.9	62

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73	Correlation between Particle Motion and Voronoi-Cell-Shape Fluctuations during the Compaction of Granular Matter. Physical Review Letters, 2008, 101, 258001.	2.9	62
74	Localization model description of diffusion and structural relaxation in glass-forming Cuâ€“Zr alloys. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 054048.	0.9	62
75	Modification of the Phase Stability of Polymer Blends by Diblock Copolymer Additives. Macromolecules, 1995, 28, 2276-2287.	2.2	61
76	Lattice model of living polymerization. II. Interplay between polymerization and phase stability. Journal of Chemical Physics, 2000, 112, 1002-1010.	1.2	61
77	Incoherent Neutron Scattering as a Probe of the Dynamics in Molecularly Thin Polymer Films. Macromolecules, 2003, 36, 373-379.	2.2	61
78	Development of minimal models of the elastic properties of flexible and stiff polymer networks with permanent and thermoreversible cross-links. Soft Matter, 2010, 6, 3548.	1.2	61
79	Dynamic entropy as a measure of caging and persistent particle motion in supercooled liquids. Physical Review E, 1999, 60, 5714-5724.	0.8	60
80	Transient Target Patterns in Phase Separating Filled Polymer Blends. Macromolecules, 1999, 32, 5917-5924.	2.2	60
81	Dielectric Spectroscopy Investigation of Relaxation in C₆₀âˆ’Polyisoprene Nanocomposites. Macromolecules, 2009, 42, 3201-3206.	2.2	60
82	Influence of Cohesive Energy on Relaxation in a Model Glass-Forming Polymer Melt. Macromolecules, 2016, 49, 8355-8370.	2.2	60
83	Critical properties and phase separation in lattice Boltzmann fluid mixtures. Physical Review E, 2001, 63, 031205.	0.8	58
84	Energy renormalization for coarse-graining polymers having different segmental structures. Science Advances, 2019, 5, eaav4683.	4.7	58
85	Coupling between Phase Separation and Surface Deformation Modes in Self-Organizing Polymer Blend Films. Physical Review Letters, 1998, 81, 3900-3903.	2.9	57
86	The fundamental role of flexibility on the strength of molecular binding. Soft Matter, 2012, 8, 6385.	1.2	56
87	Quantifying Changes in the High-Frequency Dynamics of Mixtures by Dielectric Spectroscopy. Journal of Physical Chemistry B, 2008, 112, 15980-15990.	1.2	55
88	Crowding Induced Self-Assembly and Enthalpy-Entropy Compensation. Physical Review Letters, 2009, 103, 135701.	2.9	55
89	A comparative study of thermodynamic, conformational, and structural properties of bottlebrush with star and ring polymer melts. Journal of Chemical Physics, 2018, 149, 044904.	1.2	55
90	Weak and Strong Gels and the Emergence of the Amorphous Solid State. Gels, 2018, 4, 19.	2.1	53

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91	Relaxation Behavior of Polymer Structures Fabricated by Nanoimprint Lithography. ACS Nano, 2007, 1, 84-92.	7.3	52
92	Numerical path integration technique for the calculation of transport properties of proteins. Physical Review E, 2004, 69, 031918.	0.8	51
93	String-like collective motion in the <i>Î±</i>- and <i>Î²</i>-relaxation of a coarse-grained polymer melt. Journal of Chemical Physics, 2018, 148, 104508.	1.2	51
94	Why we need to look beyond the glass transition temperature to characterize the dynamics of thin supported polymer films. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5641-5646.	3.3	50
95	String-like collective atomic motion in the interfacial dynamics of nanoparticles. Soft Matter, 2010, 6, 5944.	1.2	49
96	The Glass Transition of a Single Macromolecule. Macromolecules, 2016, 49, 7597-7604.	2.2	49
97	Counter-ion distribution around flexible polyelectrolytes having different molecular architecture. Soft Matter, 2016, 12, 2932-2941.	1.2	49
98	Coarse-Grained Model of the Dynamics of Electrolyte Solutions. Journal of Physical Chemistry B, 2017, 121, 8195-8202.	1.2	49
99	Direct Immersion Annealing of Thin Block Copolymer Films. ACS Applied Materials & Interfaces, 2015, 7, 21639-21645.	4.0	48
100	How far is far from critical point in polymer blends? Lattice cluster theory computations for structured monomer, compressible systems. Journal of Chemical Physics, 1993, 99, 4804-4820.	1.2	47
101	Shear-Induced â€œHomogenizationâ€•of a Diluted Polymer Blend. Physical Review Letters, 1997, 78, 2664-2667.	2.9	47
102	Improved path integration method for estimating the intrinsic viscosity of arbitrarily shaped particles. Physical Review E, 2008, 78, 046712.	0.8	47
103	Mass dependence of the activation enthalpy and entropy of unentangled linear alkane chains. Journal of Chemical Physics, 2015, 143, 144905.	1.2	47
104	Energy Renormalization for Coarse-Graining the Dynamics of a Model Glass-Forming Liquid. Journal of Physical Chemistry B, 2018, 122, 2040-2045.	1.2	47
105	Self-avoiding-walk contacts and random-walk self-intersections in variable dimensionality. Physical Review E, 1995, 51, 1791-1817.	0.8	46
106	Competition between Hydrodynamic Screening ("Draining") and Excluded Volume Interactions in an Isolated Polymer Chain. Macromolecules, 1994, 27, 6088-6099.	2.2	45
107	Dielectric Characterization of Confined Water in Chiral Cellulose Nanocrystal Films. ACS Applied Materials & Interfaces, 2017, 9, 14222-14231.	4.0	45
108	Predictive relation for the Î±-relaxation time of a coarse-grained polymer melt under steady shear. Science Advances, 2020, 6, eaaz0777.	4.7	45

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109	Particle localization and hyperuniformity of polymerâ€grafted nanoparticle materials. Annalen Der Physik, 2017, 529, 1600342.	0.9	44
110	Complex Coacervation in Polyelectrolytes from a Coarse-Grained Model. Macromolecules, 2018, 51, 6717-6723.	2.2	44
111	Propagating waves of self-assembly in organosilane monolayers. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 10324-10329.	3.3	42
112	Shape characteristics of equilibrium and non-equilibrium fractal clusters. Journal of Chemical Physics, 2013, 139, 044901.	1.2	42
113	Dynamic heterogeneity and collective motion in star polymer melts. Journal of Chemical Physics, 2020, 152, 054904.	1.2	41
114	Atomic motion during the migration of general [001] tilt grain boundaries in Ni. Acta Materialia, 2007, 55, 4527-4533.	3.8	40
115	Suppression of crystallization in a plastic crystal electrolyte (SN/LiClO4) by a polymeric additive (polyethylene oxide) for battery applications. Polymer, 2009, 50, 1288-1296.	1.8	40
116	The meaning of the â€œuniversalâ€•WLF parameters of glass-forming polymer liquids. Journal of Chemical Physics, 2015, 142, 014905.	1.2	40
117	Prediction and validation of diffusion coefficients in a model drug delivery system using microsecond atomistic molecular dynamics simulation and vapour sorption analysis. Soft Matter, 2014, 10, 7480-7494.	1.2	39
118	Energy Renormalization Method for the Coarse-Graining of Polymer Viscoelasticity. Macromolecules, 2018, 51, 3818-3827.	2.2	39
119	Polyelectrolyte association and solvation. Journal of Chemical Physics, 2018, 149, 163305.	1.2	39
120	"Shift" in polymer blend phase-separation temperature in shear flow. Macromolecules, 1992, 25, 1468-1474.	2.2	38
121	Theoretical Issues Relating to Thermally Reversible Gelation by Supermolecular Fiber Formation. Langmuir, 2009, 25, 8386-8391.	1.6	38
122	Interplay of particle shape and suspension properties: a study of cube-like particles. Soft Matter, 2015, 11, 3360-3366.	1.2	38
123	Influence of higher valent ions on flexible polyelectrolyte stiffness and counter-ion distribution. Journal of Chemical Physics, 2016, 144, 164904.	1.2	38
124	Entropy-driven segregation of polymer-grafted nanoparticles under confinement. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2462-2467.	3.3	38
125	Polymer Glass Formation: Role of Activation Free Energy, Configurational Entropy, and Collective Motion. Macromolecules, 2021, 54, 3001-3033.	2.2	38
126	A dynamic measure of order in structural glasses. Computational Materials Science, 1995, 4, 292-308.	1.4	37

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127	New patterns of polymer blend miscibility associated with monomer shape and size asymmetry. Journal of Chemical Physics, 2002, 116, 9983-9996.	1.2	37
128	ZENO: Software for calculating hydrodynamic, electrical, and shape properties of polymer and particle suspensions. Journal of Research of the National Institute of Standards and Technology, 2017, 122, 1-2.	0.4	37
129	Hidden Hyperuniformity in Soft Polymeric Materials. Physical Review Letters, 2018, 121, 258002.	2.9	37
130	Swelling and growth of polymers, membranes, and sponges. Physical Review E, 1996, 54, 2677-2689.	0.8	36
131	Molecular Dynamics Study of Glass Formation in Polymer Melts with Varying Chain Stiffness. Macromolecules, 2020, 53, 4796-4809.	2.2	36
132	Effect of residual interactions on polymer properties near the theta point. II. Higher moments and comparison with Monte Carlo calculations. Journal of Chemical Physics, 1987, 87, 3089-3098.	1.2	35
133	The influence of shear on the ordering temperature of a triblock copolymer melt. Journal of Chemical Physics, 1996, 104, 1589-1599.	1.2	35
134	Structural and dynamic heterogeneity in a telechelic polymer solution. Polymer, 2004, 45, 3961-3966.	1.8	35
135	Polymerization transitions in two-dimensional systems of dipolar spheres. Physical Review E, 2005, 72, 031301.	0.8	35
136	Multistep relaxation in equilibrium polymer solutions: A minimal model of relaxation in â€œcomplexâ€• fluids. Journal of Chemical Physics, 2008, 129, 094901.	1.2	35
137	Advances in the generalized entropy theory of glass-formation in polymer melts. Journal of Chemical Physics, 2014, 141, 234903.	1.2	35
138	Self-assembly of polymer-grafted nanoparticles in solvent-free conditions. Soft Matter, 2016, 12, 9527-9537.	1.2	35
139	Communication: Counter-ion solvation and anomalous low-angle scattering in salt-free polyelectrolyte solutions. Journal of Chemical Physics, 2017, 147, 241103.	1.2	35
140	Communication: A comparison between the solution properties of knotted ring and star polymers. Journal of Chemical Physics, 2018, 149, 161101.	1.2	35
141	Influence of Pressure on Glass Formation in a Simulated Polymer Melt. Macromolecules, 2017, 50, 2585-2598.	2.2	34
142	The interfacial zone in thin polymer films and around nanoparticles in polymer nanocomposites. Journal of Chemical Physics, 2019, 151, 124705.	1.2	33
143	Dynamics of thin polymer films: Recent insights from incoherent neutron scattering. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 3218-3234.	2.4	32
144	Morphology and Transport Properties of Two-Dimensional Sheet Polymers. Macromolecules, 2010, 43, 3438-3445.	2.2	32

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145	Effects of a â€œboundâ€•substrate layer on the dynamics of supported polymer films. Journal of Chemical Physics, 2017, 147, 044901.	1.2	32
146	Collective Motion in the Interfacial and Interior Regions of Supported Polymer Films and Its Relation to Relaxation. Journal of Physical Chemistry B, 2019, 123, 5935-5941.	1.2	32
147	Fast dynamics in a model metallic glass-forming material. Journal of Chemical Physics, 2021, 154, 084505.	1.2	32
148	Glassy interfacial dynamics of Ni nanoparticles: part I Colored noise, dynamic heterogeneity and collective atomic motion. Soft Matter, 2013, 9, 1254-1265.	1.2	31
149	Polymer contraction below the .theta. point: a renormalization group description. Macromolecules, 1985, 18, 2445-2454.	2.2	30
150	Nanoimprint Lithography and the Role of Viscoelasticity in the Generation of Residual Stress in Model Polystyrene Patterns. Advanced Functional Materials, 2008, 18, 1854-1862.	7.8	30
151	String-Like Collective Atomic Motion in the Melting and Freezing of Nanoparticles. Journal of Physical Chemistry B, 2011, 115, 14068-14076.	1.2	30
152	Generalized entropy theory of glass-formation in fully flexible polymer melts. Journal of Chemical Physics, 2016, 145, 234509.	1.2	30
153	Universal nature of dynamic heterogeneity in glass-forming liquids: A comparative study of metallic and polymeric glass-forming liquids. Journal of Chemical Physics, 2019, 151, 184503.	1.2	30
154	Plasticization effect of C₆₀on the fast dynamics of polystyrene and related polymers: an incoherent neutron scattering study. Journal of Physics Condensed Matter, 2008, 20, 104209.	0.7	29
155	Growth of equilibrium polymers under non-equilibrium conditions. Journal of Physics Condensed Matter, 2008, 20, 155101.	0.7	29
156	Structure and Dynamics of a Graphene Melt. ACS Nano, 2018, 12, 5427-5435.	7.3	29
157	Bottlebrush polymers in the melt and polyelectrolytes in solution share common structural features. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 5168-5175.	3.3	29
158	Direct observation of stringlike collective motion in a two-dimensional driven granular fluid. Physical Review E, 2010, 81, 041301.	0.8	28
159	Molecular rigidity and enthalpyâ€“entropy compensation in DNA melting. Soft Matter, 2017, 13, 8309-8330.	1.2	28
160	Superionic UO₂: A model anharmonic crystalline material. Journal of Chemical Physics, 2019, 150, 174506.	1.2	28
161	Influence of knot complexity on glass-formation in low molecular mass ring polymer melts. Journal of Chemical Physics, 2019, 150, 101103.	1.2	28
162	Equation of State and Entropy Theory Approach to Thermodynamic Scaling in Polymeric Glass-Forming Liquids. Macromolecules, 2021, 54, 3247-3269.	2.2	28

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163	Role of Cohesive Energy in Glass Formation of Polymers with and without Bending Constraints. Macromolecules, 2020, 53, 9678-9697.	2.2	28
164	Influence of polymer architectures on diffusion in unentangled polymer melts. Soft Matter, 2017, 13, 5778-5784.	1.2	27
165	Corrections to preaveraging approximation within the Kirkwoodâ€“Riseman model for flexible polymers: Calculations to second order in Îµ with both hydrodynamic and excluded volume interactions. Journal of Chemical Physics, 1986, 85, 3674-3687.	1.2	26
166	Lattice model of equilibrium polymerization. V. Scattering properties and the width of the critical regime for phase separation. Journal of Chemical Physics, 2006, 124, 144906.	1.2	26
167	Lattice model of equilibrium polymerization. VI. Measures of fluid â€œcomplexityâ€•and search for generalized corresponding states. Journal of Chemical Physics, 2007, 127, 224901.	1.2	26
168	Persistent draining crossover in DNA and other semi-flexible polymers: Evidence from hydrodynamic models and extensive measurements on DNA solutions. Journal of Chemical Physics, 2015, 143, 124903.	1.2	26
169	Evolution of collective motion in a model glass-forming liquid during physical aging. Journal of Chemical Physics, 2013, 138, 12A528.	1.2	25
170	Glassy interfacial dynamics of Ni nanoparticles: Part II Discrete breathers as an explanation of two-level energy fluctuations. Soft Matter, 2013, 9, 1266-1280.	1.2	25
171	Two glass transitions in miscible polymer blends?. Journal of Chemical Physics, 2014, 140, 244905.	1.2	25
172	Thermally-induced transition of lamellae orientation in block-copolymer films on â€˜neutralâ€™ nanoparticle-coated substrates. Soft Matter, 2015, 11, 5154-5167.	1.2	25
173	Influence of string-like cooperative atomic motion on surface diffusion in the (110) interfacial region of crystalline Ni. Journal of Chemical Physics, 2015, 142, 084704.	1.2	25
174	A wrinkling-based method for investigating glassy polymer film relaxation as a function of film thickness and temperature. Journal of Chemical Physics, 2017, 147, 154902.	1.2	25
175	What does the instantaneous normal mode spectrum tell us about dynamical heterogeneity in glass-forming fluids?. Journal of Chemical Physics, 2019, 151, 184904.	1.2	25
176	Polymers in two dimensions: renormalization group study using three-parameter model. Macromolecules, 1985, 18, 2455-2463.	2.2	24
177	Surface-interacting polymers: an integral-equation and fractional-calculus approach. Macromolecules, 1989, 22, 1786-1797.	2.2	24
178	Capillary instability in nanoimprinted polymer films. Soft Matter, 2009, 5, 2913.	1.2	24
179	Coupling of isotropic and directional interactions and its effect on phase separation and self-assembly. Journal of Chemical Physics, 2016, 144, 074901.	1.2	24
180	Understanding Activation Volume in Glass-Forming Polymer Melts via Generalized Entropy Theory. Macromolecules, 2020, 53, 7239-7252.	2.2	24

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181	Dynamic heterogeneity, cooperative motion, and Johariâ€“Goldstein $$eta $$-relaxation in a metallic glass-forming material exhibiting a fragile-to-strong transition. European Physical Journal E, 2021, 44, 56.	0.7	24
182	Dynamical clustering and a mechanism for raft-like structures in a model lipid membrane. Soft Matter, 2014, 10, 3036.	1.2	23
183	Intrinsic conductivity of carbon nanotubes and graphene sheets having a realistic geometry. Journal of Chemical Physics, 2015, 143, 204902.	1.2	23
184	Confronting the complexity of CNT materials. Soft Matter, 2015, 11, 4888-4898.	1.2	23
185	String-like collective motion and diffusion in the interfacial region of ice. Journal of Chemical Physics, 2017, 147, 194508.	1.2	23
186	Tuning the Relaxation of Nanopatterned Polymer Films with Polymer-Grafted Nanoparticles: Observation of Entropyâ€“Enthalpy Compensation. Nano Letters, 2018, 18, 7441-7447.	4.5	23
187	The Influence of Polymer and Ion Solvation on the Conformational Properties of Flexible Polyelectrolytes. Gels, 2018, 4, 20.	2.1	23
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