Ronald G Larson

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1180167/publications.pdf

Version: 2024-02-01

199 papers	9,618 citations	43973 48 h-index	46693 89 g-index
205 all docs	205 docs citations	205 times ranked	9429 citing authors

#	Article	IF	Citations
1	The MARTINI Coarse-Grained Force Field: Extension to Proteins. Journal of Chemical Theory and Computation, 2008, 4, 819-834.	2.3	2,178
2	Nonadditivity of nanoparticle interactions. Science, 2015, 350, 1242477.	6.0	403
3	Transport and deposition patterns in drying sessile droplets. AICHE Journal, 2014, 60, 1538-1571.	1.8	288
4	The rheology of dilute solutions of flexible polymers: Progress and problems. Journal of Rheology, 2005, 49, 1-70.	1.3	269
5	Brownian dynamics simulations of single DNA molecules in shear flow. Journal of Rheology, 2000, 44, 713-742.	1.3	212
6	A review of thixotropy and its rheological modeling. Journal of Rheology, 2019, 63, 477-501.	1.3	183
7	Coarse-Grained Molecular Dynamics Studies of the Concentration and Size Dependence of Fifth- and Seventh-Generation PAMAM Dendrimers on Pore Formation in DMPC Bilayer. Journal of Physical Chemistry B, 2008, 112, 7778-7784.	1.2	155
8	Molecular Dynamics Simulations of Sodium Dodecyl Sulfate Micelles in Waterâ€"The Effect of the Force Field. Journal of Physical Chemistry B, 2014, 118, 3864-3880.	1.2	136
9	Modeling hydrodynamic interaction in Brownian dynamics: simulations of extensional flows of dilute solutions of DNA and polystyrene. Journal of Non-Newtonian Fluid Mechanics, 2003, 113, 147-191.	1.0	131
10	A Molecular Thermodynamic Model of Complexation in Mixtures of Oppositely Charged Polyelectrolytes with Explicit Account of Charge Association/Dissociation. Macromolecules, 2016, 49, 9706-9719.	2.2	112
11	pH and Salt Effects on the Associative Phase Separation of Oppositely Charged Polyelectrolytes. Polymers, 2014, 6, 1414-1436.	2.0	111
12	Brownian dynamics simulations of flexible polymers with springâ€“spring repulsions. Journal of Chemical Physics, 2001, 114, 6937-6941.	1.2	110
13	A constitutive model for the prediction of ellipsoidal droplet shapes and stresses in immiscible blends. Journal of Rheology, 2000, 44, 1055-1083.	1.3	105
14	A hierarchical algorithm for predicting the linear viscoelastic properties of polymer melts with long-chain branching. Rheologica Acta, 2005, 44, 319-330.	1.1	103
15	Molecular Dynamics Simulations of Threadlike Cetyltrimethylammonium Chloride Micelles: Effects of Sodium Chloride and Sodium Salicylate Salts. Journal of Physical Chemistry B, 2009, 113, 13697-13710.	1.2	101
16	Reâ€Shaping the Coffee Ring. Angewandte Chemie - International Edition, 2012, 51, 2546-2548.	7.2	95
17	Tube Dilation and Reptation in Binary Blends of Monodisperse Linear Polymers. Macromolecules, 2004, 37, 597-604.	2.2	93
18	Rheological State Diagrams for Rough Colloids in Shear Flow. Physical Review Letters, 2017, 119, 158001.	2.9	93

#	Article	IF	Citations
19	The scaling of zero-shear viscosities of semidilute polymer solutions with concentration. Journal of Rheology, 2005, 49, 1117-1128.	1.3	91
20	Constraint Release Effects in Monodisperse and Bidisperse Polystyrenes in Fast Transient Shearing Flows. Macromolecules, 2001, 34, 5229-5237.	2.2	89
21	The effect of steady flow fields on the isotropicâ€“nematic phase transition of rigid rodâ€like polymers. Journal of Chemical Physics, 1990, 92, 792-800.	1.2	87
22	Comparing tube models for predicting the linear rheology of branched polymer melts. Journal of Rheology, 2010, 54, 223-260.	1.3	85
23	Turbulence without inertia. Nature, 2000, 405, 27-28.	13.7	79
24	Primitive Path Identification and Statistics in Molecular Dynamics Simulations of Entangled Polymer Melts. Macromolecules, 2005, 38, 5761-5765.	2.2	75
25	DNA configurations and concentration in shearing flow near a glass surface in a microchannel. Journal of Rheology, 2005, 49, 127-138.	1.3	75
26	Coarse-Grained Molecular Dynamics Simulation of Self-Assembly and Surface Adsorption of Ionic Surfactants Using an Implicit Water Model. Langmuir, 2015, 31, 1262-1271.	1.6	75
27	Adsorption of Plasma Proteins onto PEGylated Lipid Bilayers: The Effect of PEG Size and Grafting Density. Biomacromolecules, 2016, 17, 1757-1765.	2.6	75
28	Direct Calculation of the Tube Potential Confining Entangled Polymers. Macromolecules, 2006, 39, 6737-6743.	2.2	72
29	Predicting the linear viscoelastic properties of monodisperse and polydisperse polystyrenes and polyethylenes. Rheologica Acta, 2001, 40, 516-532.	1.1	71
30	Modeling the Buildup of Exponentially Growing Polyelectrolyte Multilayer Films. Journal of Physical Chemistry B, 2009, 113, 4232-4241.	1.2	68
31	Twenty years of drying droplets. Nature, 2017, 550, 466-467.	13.7	68
32	Molecular dynamics simulation of phase transitions in model lung surfactant monolayers. Biochimica Et Biophysica Acta - Biomembranes, 2011, 1808, 2450-2465.	1.4	65
33	A multimode structural kinetics constitutive equation for the transient rheology of thixotropic elasto-viscoplastic fluids. Journal of Rheology, 2018, 62, 321-342.	1.3	64
34	Modeling hydrodynamic interaction in Brownian dynamics: Simulations of extensional and shear flows of dilute solutions of high molecular weight polystyrene. Journal of Rheology, 2004, 48, 995-1021.	1.3	62
35	Identification of Topological Constraints in Entangled Polymer Melts Using the Bond-Fluctuation Model. Macromolecules, 2006, 39, 2413-2417.	2.2	62
36	Constitutive model that shows extension thickening for entangled solutions and extension thinning for melts. Journal of Rheology, 2014, 58, 255-279.	1.3	61

#	Article	IF	Citations
37	Relationship between Polyelectrolyte Bulk Complexation and Kinetics of Their Layer-by-Layer Assembly. Macromolecules, 2015, 48, 400-409.	2.2	61
38	Combined Synthesis, TGIC Characterization, and Rheological Measurement and Prediction of Symmetric H Polybutadienes and Their Blends with Linear and Star-Shaped Polybutadienes. Macromolecules, 2011, 44, 7799-7809.	2.2	59
39	A mesoscopic simulation method for predicting the rheology of semi-dilute wormlike micellar solutions. Journal of Rheology, 2014, 58, 681-721.	1.3	59
40	Brownian dynamics simulations of isolated polymer molecules in shear flow near adsorbing and nonadsorbing surfaces. Journal of Rheology, 2002, 46, 831.	1.3	57
41	Direct Molecular Dynamics Simulation of Branch Point Motion in Asymmetric Star Polymer Melts. Macromolecules, 2007, 40, 3443-3449.	2.2	54
42	Potentials of Mean Force and Escape Times of Surfactants from Micelles and Hydrophobic Surfaces Using Molecular Dynamics Simulations. Langmuir, 2015, 31, 1336-1343.	1.6	54
43	Dilution exponent in the dynamic dilution theory for polymer melts. Journal of Rheology, 2003, 47, 199-211.	1.3	52
44	DNA molecular configurations in an evaporating droplet near a glass surface. Journal of Rheology, 2003, 47, 1111-1132.	1.3	51
45	Assessing the Efficiency of Polymeric Excipients by Atomistic Molecular Dynamics Simulations. Molecular Pharmaceutics, 2014, 11, 1676-1686.	2.3	51
46	Role of electrostatic correlations in polyelectrolyte charge association. Journal of Chemical Physics, 2018, 149, 163335.	1.2	51
47	Influence of weak elasticity of dispersed phase on droplet behavior in sheared polybutadiene/poly(dimethyl siloxane) blends. Journal of Rheology, 2003, 47, 37-58.	1.3	50
48	A Systematic Coarse-Grained Model for Methylcellulose Polymers: Spontaneous Ring Formation at Elevated Temperature. Macromolecules, 2016, 49, 1490-1503.	2.2	50
49	Multiscale Modeling of the Effects of Salt and Perfume Raw Materials on the Rheological Properties of Commercial Threadlike Micellar Solutions. Journal of Physical Chemistry B, 2017, 121, 2468-2485.	1.2	50
50	Universal Scaling of Linear and Nonlinear Rheological Properties of Semidilute and Concentrated Polymer Solutions. Macromolecules, 2008, 41, 8903-8915.	2.2	47
51	Explicit- and Implicit-Solvent Molecular Dynamics Simulations of Complex Formation between Polycations and Polyanions. Macromolecules, 2009, 42, 8851-8863.	2.2	47
52	Mechanism of Wax Deposition on Cold Surfaces: Gelation and Deposit Aging. Energy & Fuels, 2019, 33, 3776-3786.	2.5	45
53	Molecular Dynamics Simulations of Structureâ€“Property Relationships of Tween 80 Surfactants in Water and at Interfaces. Journal of Physical Chemistry B, 2014, 118, 12907-12918.	1.2	44
54	Direct All-Atom Molecular Dynamics Simulations of the Effects of Short Chain Branching on Polyethylene Oligomer Crystal Nucleation. Macromolecules, 2018, 51, 4762-4769.	2.2	43

#	Article	IF	Citations
55	From well-entangled to partially-entangled wormlike micelles. Soft Matter, 2019, 15, 642-655.	1.2	42
56	Influence of elasticity on dispersed-phase droplet size in immiscible polymer blends in simple shearing flow. Polymer Engineering and Science, 2002, 42, 798-809.	1.5	40
57	Constraint Release in Entangled Binary Blends of Linear Polymers: A Molecular Dynamics Study. Macromolecules, 2008, 41, 4945-4960.	2.2	40
58	Influence of dispersed-phase elasticity on steady-state deformation and breakup of droplets in simple shearing flow of immiscible polymer blends. Journal of Rheology, 2004, 48, 843-862.	1.3	39
59	Tumbling and Deformation of Isolated Polymer Chains in Shearing Flow. Macromolecules, 2012, 45, 9493-9499.	2.2	39
60	Multiple regimes of deformation in shearing flow of isolated polymers. Journal of Rheology, 2012, 56, 305-332.	1.3	39
61	Quantitative nonlinear thixotropic model with stretched exponential response in transient shear flows. Journal of Rheology, 2016, 60, 1301-1315.	1.3	39
62	Brownian dynamics simulations with stiff finitely extensible nonlinear elastic-Fraenkel springs as approximations to rods in bead-rod models. Journal of Chemical Physics, 2006, 124, 044911.	1.2	38
63	Determining polymer molecular weight distributions from rheological properties using the dual-constraint model. Rheologica Acta, 2008, 47, 689-700.	1.1	38
64	Modeling the linear viscoelastic properties of metallocene-catalyzed high density polyethylenes with long-chain branching. Journal of Rheology, 2005, 49, 523-536.	1.3	37
65	Phase behavior of Janus colloids determined by sedimentation equilibrium. Soft Matter, 2014, 10, 4593-4602.	1.2	37
66	A Coarse-Grained Implicit Solvent Model for Poly(ethylene oxide), CnEm Surfactants, and Hydrophobically End-Capped Poly(ethylene oxide) and Its Application to Micelle Self-Assembly and Phase Behavior. Macromolecules, 2015, 48, 7709-7718.	2.2	37
67	Advances in modeling of polymer melt rheology. AICHE Journal, 2007, 53, 542-548.	1.8	36
68	Determination of characteristic lengths and times for wormlike micelle solutions from rheology using a mesoscopic simulation method. Journal of Rheology, 2015, 59, 903-934.	1.3	36
69	Anisotropic selfâ€assembly and gelation in aqueous methylcelluloseâ€”theory and modeling. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1624-1636.	2.4	36
70	Assessing the Efficacy of Poly(N-isopropylacrylamide) for Drug Delivery Applications Using Molecular Dynamics Simulations. Molecular Pharmaceutics, 2017, 14, 478-491.	2.3	36
71	Rich Janus colloid phase behavior under steady shear. Soft Matter, 2016, 12, 4071-4081.	1.2	35
72	Analysis of Solvation and Gelation Behavior of Methylcellulose Using Atomistic Molecular Dynamics Simulations. Journal of Physical Chemistry B, 2014, 118, 13992-14008.	1.2	34

#	Article	IF	Citations
73	Challenging Tube and Slip-Link Models: Predicting the Linear Rheology of Blends of Well-Characterized Star and Linear 1,4-Polybutadienes. Macromolecules, 2016, 49, 4964-4977.	2.2	34
74	Transitional pathway to elastic turbulence in torsional, parallel-plate flow of a polymer solution. Journal of Fluid Mechanics, 2006, 554, 191.	1.4	33
75	Method for obtaining tube model parameters for commercial ethene/Î±-olefin copolymers. Journal of Rheology, 2010, 54, 393-406.	1.3	32
76	?Fracture? phenomena in shearing flow of viscous liquids. Rheologica Acta, 1997, 36, 579-584.	1.1	31
77	Comprehensive constitutive model for immiscible blends of Newtonian polymers. Journal of Rheology, 2004, 48, 319-348.	1.3	31
78	Prediction of coil-stretch hysteresis for dilute polystyrene molecules in extensional flow. Journal of Rheology, 2005, 49, 1081-1089.	1.3	31
79	Comparison of Brownian Dynamics Simulations with Microscopic and Light-Scattering Measurements of Polymer Deformation under Flow. Macromolecules, 2000, 33, 1411-1415.	2.2	30
80	Brownian Dynamics Modeling of Flow-Induced Birefringence and Chain Scission in Dilute Polymer Solutions in a Planar Cross-Slot Flow. Macromolecules, 2005, 38, 1456-1468.	2.2	30
81	Reversible and Irreversible Adsorption Energetics of Poly(ethylene glycol) and Sorbitan Poly(ethoxylate) at a Water/Alkane Interface. Langmuir, 2015, 31, 7503-7511.	1.6	30
82	Binding kinetics of lock and key colloids. Journal of Chemical Physics, 2015, 142, 174909.	1.2	28
83	Universal Relaxation Behavior of Entangled 1,4-Polybutadiene Melts in the Transition Frequency Region. Macromolecules, 2015, 48, 4122-4131.	2.2	28
84	Injectable drug depot engineered to release multiple ophthalmic therapeutic agents with precise time profiles for postoperative treatment following ocular surgery. Acta Biomaterialia, 2018, 73, 90-102.	4.1	28
85	Looking inside the entanglement â€œtubeâ€•using molecular dynamics simulations. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 3240-3248.	2.4	27
86	Role of electrostatic interactions in charge regulation of weakly dissociating polyacids. Progress in Polymer Science, 2021, 112, 101322.	11.8	27
87	The lengths of thread-like micelles inferred from rheology. Journal of Rheology, 2012, 56, 1363-1374.	1.3	26
88	Linear viscoelasticity and time-temperature-salt and other superpositions in polyelectrolyte coacervates. Journal of Rheology, 2021, 65, 77-102.	1.3	26
89	Analysis of Partitioning of Salt through Doping of Polyelectrolyte Complex Coacervates. Macromolecules, 2020, 53, 6928-6945.	2.2	25
90	Lattice Monte Carlo Simulations of Dilute Mixed Micelles. Langmuir, 2003, 19, 10434-10442.	1.6	24

#	Article	IF	Citations
91	An Explanation for the High-Frequency Elastic Response of Dilute Polymer Solutions. Macromolecules, 2004, 37, 5110-5114.	2.2	24
92	Modeling the Hydrophobicity of Nanoparticles and Their Interaction with Lipids and Proteins. Langmuir, 2016, 32, 13084-13094.	1.6	24
93	Scission Free Energies for Wormlike Surfactant Micelles: Development of a Simulation Protocol, Application, and Validation for Personal Care Formulations. Langmuir, 2018, 34, 1564-1573.	1.6	24
94	Salt- and pH-induced swelling of a poly(acrylic acid) brush via quartz crystal microbalance w/dissipation (QCM-D). Soft Matter, 2019, 15, 7838-7851.	1.2	24
95	Effect of Flow-Induced Nematic Order on Polyethylene Crystal Nucleation. Macromolecules, 2020, 53, 7650-7657.	2.2	24
96	Dissipative particle dynamics simulation of dilute polymer solutionsâ€”Inertial effects and hydrodynamic interactions. Journal of Rheology, 2014, 58, 1039-1058.	1.3	23
97	Nonlinear elastic behavior and anisotropic electronic properties of two-dimensional borophene. Journal of Applied Physics, 2019, 125, .	1.1	23
98	Modeling the Adsorption of Rheology Modifiers onto Latex Particles Using Coarse-Grained Molecular Dynamics (CG-MD) and Self-Consistent Field Theory (SCFT). Macromolecules, 2015, 48, 8045-8054.	2.2	22
99	Computational Modeling of Hydroxypropyl-Methylcellulose Acetate Succinate (HPMCAS) and Phenytoin Interactions: A Systematic Coarse-Graining Approach. Molecular Pharmaceutics, 2017, 14, 733-745.	2.3	22
100	A metastable nematic precursor accelerates polyethylene oligomer crystallization as determined by atomistic simulations and self-consistent field theory. Journal of Chemical Physics, 2019, 150, 244903.	1.2	22
101	Associative thickeners for waterborne paints: Structure, characterization, rheology, and modeling. Progress in Polymer Science, 2022, 129, 101546.	11.8	22
102	Brownian dynamics simulations of single polymer chains with and without self-entanglements in theta and good solvents under imposed flow fields. Journal of Rheology, 2010, 54, 1061-1081.	1.3	21
103	How accurate are stochastic rotation dynamics simulations of polymer dynamics?. Journal of Rheology, 2013, 57, 1177-1194.	1.3	21
104	Using spring repulsions to model entanglement interactions in Brownian dynamics simulations of beadâ€“spring chains. Rheologica Acta, 2008, 47, 3-17.	1.1	20
105	Systematic Coarse-Graining of the Dynamics of Self-Attractive Semiflexible Polymers. Macromolecules, 2014, 47, 1494-1502.	2.2	20
106	Time-dependent shear rate inhomogeneities and shear bands in a thixotropic yield-stress fluid under transient shear. Soft Matter, 2019, 15, 7956-7967.	1.2	20
107	The origin of stress-oscillation damping during startup and reversal of torsional shearing of nematics. Rheologica Acta, 1997, 36, 485-497.	1.1	19
108	Effect of Branch Point Position on the Linear Rheology of Asymmetric Star Polymers. Macromolecules, 2008, 41, 6871-6872.	2.2	19

#	Article	IF	Citations
109	Dynamics of vorticity stretching and breakup of isolated viscoelastic droplets in an immiscible viscoelastic matrix. Rheologica Acta, 2004, 43, 246-256.	1.1	18
110	Molecular View of Polymer/Water Interfaces in Latex Paint. Macromolecules, 2014, 47, 6441-6452.	2.2	18
111	Coarse-grained modeling of crystal growth and polymorphism of a model pharmaceutical molecule. Soft Matter, 2016, 12, 8246-8255.	1.2	18
112	Nucleation of urea from aqueous solution: Structure, critical size, and rate. Journal of Chemical Physics, 2017, 146, 134501.	1.2	18
113	Effect of Surface Charge and Hydrophobicity on Phospholipid-Nanoparticle Corona Formation: A Molecular Dynamics Simulation Study. Colloids and Interface Science Communications, 2018, 25, 7-11.	2.0	18
114	Nonmonotonic Scission and Branching Free Energies as Functions of Hydrotrope Concentration for Charged Micelles. Physical Review Letters, 2018, 121, 038001.	2.9	18
115	Principles for coarse-graining polymer molecules in simulations of polymer fluid mechanics. Molecular Physics, 2004, 102, 341-351.	0.8	17
116	A molecular dynamics simulation of the structure of sodium lauryl ether sulfate and poly(vinyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 467 Aspects, 2019, 563, 84-94.	2.3	17
117	Coarse-grained molecular dynamics simulation of tethered lipid assemblies. Soft Matter, 2013, 9, 480-486.	1.2	16
118	A framework for multi-scale simulation of crystal growth in the presence of polymers. Soft Matter, 2017, 13, 1904-1913.	1.2	16
119	Efficient estimation of binding free energies between peptides and an MHC class II molecule using coarseâ€grained molecular dynamics simulations with a weighted histogram analysis method. Journal of Computational Chemistry, 2017, 38, 2007-2019.	1.5	16
120	Characterizing the rheology, slip, and velocity profiles of lamellar gel networks. Journal of Rheology, 2020, 64, 851-862.	1.3	16
121	Overcharging of polyelectrolyte complexes: an entropic phenomenon. Soft Matter, 2020, 16, 10640-10656.	1.2	15
122	DNA molecular configurations in flows near adsorbing and nonadsorbing surfaces. Rheologica Acta, 2004, 44, 38-46.	1.1	14
123	Effects of excluded volume and hydrodynamic interactions on the behavior of isolated beadâ€rod polymer chains in shearing flow. AICHE Journal, 2014, 60, 1400-1412.	1.8	14
124	Multiscale Molecular Dynamics Simulations of Model Hydrophobically Modified Ethylene Oxide Urethane Micelles. Journal of Physical Chemistry B, 2015, 119, 12540-12551.	1.2	14
125	Multiscale Computational Modeling of the Nanostructure of Solid Dispersions of Hydroxypropyl Methylcellulose Acetate Succinate (HPMCAS) and Phenytoin. Molecular Pharmaceutics, 2017, 14, 3422-3435.	2.3	14
126	Molecular Imaging of Shear-Induced Polymer Migration in Dilute Solutions near a Surface. Macromolecules, 2007, 40, 8490-8499.	2.2	13

#	Article	IF	Citations
127	Going with the Flow. Science, 2007, 318, 57-58.	6.0	13
128	Multiple relaxation modes in suspensions of colloidal particles bridged by telechelic polymers. Journal of Rheology, 2018, 62, 477-490.	1.3	13
129	A novel hybrid population balanceâ€"Brownian dynamics method for simulating the dynamics of polymer-bridged colloidal latex particle suspensions. Journal of Rheology, 2018, 62, 235-247.	1.3	13
130	A slip-spring simulation model for predicting linear and nonlinear rheology of entangled wormlike micellar solutions. Journal of Rheology, 2020, 64, 1045-1061.	1.3	13
131	Determining threadlike micelle lengths from rheometry. Journal of Rheology, 2021, 65, 59-71.	1.3	13
132	A Mean Flow Model for Polymer and Fiber Turbulent Drag Reduction. Applied Rheology, 2005, 15, 370-389.	3.5	12
133	A unified multicomponent stress-diffusion model of drug release from non-biodegradable polymeric matrix tablets. Journal of Controlled Release, 2016, 224, 43-58.	4.8	12
134	Inertio-capillary cross-streamline drift of droplets in Poiseuille flow using dissipative particle dynamics simulations. Soft Matter, 2018, 14, 2267-2280.	1.2	12
135	A nonlinear kinetic-rheology model for reversible scission and deformation of unentangled wormlike micelles. Journal of Rheology, 2018, 62, 1419-1427.	1.3	12
136	Surfactant desorption and scission free energies for cylindrical and spherical micelles from umbrella-sampling molecular dynamics simulations. Journal of Colloid and Interface Science, 2021, 599, 773-784.	5.0	12
137	Implications of microscopic simulations of polymer melts for mean-field tube theories. Molecular Physics, 2007, 105, 249-260.	0.8	11
138	Concentration Dependence of Shear-Induced Polymer Migration in DNA Solutions near a Surface. Macromolecules, 2007, 40, 8784-8787.	2.2	11
139	Predicting the Flow of Real Polymers. Science, 2011, 333, 1834-1835.	6.0	11
140	Rotator-to-Lamellar Phase Transition in Janus Colloids Driven by Pressure Anisotropy. Physical Review Letters, 2016, 117, 128001.	2.9	11
141	Elongation thinning and morphology deformation of nanoparticle-filled polypropylene/polystyrene blends in elongational flow. Journal of Rheology, 2018, 62, 11-23.	1.3	11
142	Modeling Intercolloidal Interactions Induced by Adsorption of Mobile Telechelic Polymers onto Particle Surfaces. Macromolecules, 2019, 52, 5357-5365.	2.2	11
143	An experimentally validated heat and mass transfer model for wax deposition from flowing oil onto a cold surface. AICHE Journal, 2021, 67, e17063.	1.8	11
144	Effects of Bending and Torsional Potentials on High-Frequency Viscoelasticity of Dilute Polymer Solutions. Macromolecules, 2008, 41, 3692-3700.	2.2	10

#	Article	IF	Citations
145	Complex Protein Patterns in Drying Droplets. Materials Research Society Symposia Proceedings, 2010, 1273, 30101.	0.1	10
146	Stress-gradient-induced polymer migration: Perturbation theory and comparisons to stochastic simulations. Journal of Rheology, 2016, 60, 327-343.	1.3	10
147	Bridging Dynamics of Telechelic Polymers between Solid Surfaces. Macromolecules, 2018, 51, 2125-2137.	2.2	10
148	Tension-Induced Nematic Phase Separation in Bidisperse Homopolymer Melts. ACS Central Science, 2018, 4, 1545-1550.	5.3	10
149	Stretch and Breakage of Wormlike Micelles under Uniaxial Strain: A Simulation Study and Comparison with Experimental Results. Langmuir, 2018, 34, 12600-12608.	1.6	10
150	Unraveling Dynamics of Entangled Polymers in Strong Extensional Flows. Macromolecules, 2019, 52, 1296-1307.	2.2	10
151	Inertial migration of neutrally buoyant prolate and oblate spheroids in plane Poiseuille flow using dissipative particle dynamics simulations. Computational Materials Science, 2019, 162, 178-185.	1.4	10
152	Future directions in physiochemical modeling of the thermodynamics of polyelectrolyte coacervates. AICHE Journal, 2022, 68, .	1.8	10
153	A hybrid Brownian dynamics/constitutive model for yielding, aging, and rejuvenation in deforming polymeric glasses. Soft Matter, 2016, 12, 6757-6770.	1.2	9
154	Kinetic modeling and design of colloidal lock and key assembly. Journal of Colloid and Interface Science, 2016, 463, 242-257.	5.0	9
155	Multiscale Modeling of Sub-Entanglement-Scale Chain Stretching and Strain Hardening in Deformed Polymeric Glasses. Macromolecules, 2019, 52, 9248-9260.	2.2	9
156	Concentration, salt and temperature dependence of strain hardening of step shear in CTAB/NaSal surfactant solutions. Journal of Rheology, 2017, 61, 967-977.	1.3	8
157	Stress-gradient-induced polymer migration in Taylorâ€“Couette flow. Soft Matter, 2017, 13, 5942-5949.	1.2	8
158	Controlled Levitation of Colloids through Direct Current Electric Fields. Langmuir, 2017, 33, 10861-10867.	1.6	8
159	Growth Kinetics in Layerâ€byâ€Layer Assemblies of Organic Nanoparticles and Polyelectrolytes. ChemPhysChem, 2017, 18, 128-141.	1.0	8
160	Prediction of striped cylindrical micelles (SCMs) formed by dodecyl-Î²-<scp>d</scp>-maltoside (DDM) surfactants. Soft Matter, 2018, 14, 2694-2700.	1.2	8
161	Letter to the Editor: Modeling the nonmonotonic time-dependence of viscosity bifurcation in thixotropic yield-stress fluids. Journal of Rheology, 2019, 63, 673-675.	1.3	8
162	Slip-Spring and Kink Dynamics Models for Fast Extensional Flow of Entangled Polymeric Fluids. Polymers, 2019, 11, 465.	2.0	8

#	Article	IF	Citations
163	Determining the Dilution Exponent for Entangled 1,4-Polybutadienes Using Blends of Near-Monodisperse Star with Unentangled, Low Molecular Weight Linear Polymers. Macromolecules, 2019, 52, 1757-1771.	2.2	8
164	Hysteretic Swelling/Deswelling of Polyelectrolyte Brushes and Bilayer Films in Response to Changes in pH and Salt Concentration. Polymers, 2021, 13, 812.	2.0	8
165	Assessment of mesoscopic particle-based methods in microfluidic geometries. Journal of Chemical Physics, 2013, 139, 084109.	1.2	7
166	The effect of wall depletion and hydrodynamic interactions on stress-gradient-induced polymer migration. Soft Matter, 2016, 12, 5883-5897.	1.2	7
167	Shear-Induced Alignment of Janus Particle Lamellar Structures. Langmuir, 2018, 34, 1051-1060.	1.6	7
168	Search for the Source of an Apparent Interfacial Resistance To Mass Transfer of CnEm Surfactants To the Water/Oil Interface. Langmuir, 2019, 35, 2898-2908.	1.6	7
169	Investigation of delayed formation of wax deposits in polyethylene pipe using a flow-loop. Journal of Petroleum Science and Engineering, 2021, 196, 108104.	2.1	7
170	Brownian dynamics simulations of coagulation of dilute uniform and anisotropic particles under shear flow spanning low to high Peclet numbers. Journal of Chemical Physics, 2015, 142, 024108.	1.2	6
171	Inertial migration of a rigid sphere in plane Poiseuille flow as a test of dissipative particle dynamics simulations. Journal of Chemical Physics, 2018, 149, 164912.	1.2	6
172	Assessing the Range of Validity of Current Tube Models through Analysis of a Comprehensive Set of Starâ€“Linear 1,4-Polybutadiene Polymer Blends. Macromolecules, 2019, 52, 7831-7846.	2.2	6
173	Brownian Dynamics Simulations of Telechelic Polymers Transitioning between Hydrophobic Surfaces. Macromolecules, 2021, 54, 8612-8621.	2.2	6
174	Coarse-Grained Brownian Dynamics Simulations of Electrophoresis of DNA Molecules from Generalized Reptation Models. Macromolecules, 2007, 40, 366-378.	2.2	5
175	Predictions of polymer migration in a dilute solution between rotating eccentric cylinders. Journal of Rheology, 2021, 65, 1311-1325.	1.3	5
176	Explaining the Absence of High-Frequency Viscoelastic Relaxation Modes of Polymers in Dilute Solutions. Macromolecules, 2013, 46, 1981-1992.	2.2	4
177	Â“FractureÂ” phenomena in shearing flow of viscous liquids. Rheologica Acta, 1997, 36, 579-584.	1.1	4
178	The origin of stress-oscillation damping during start-up and reversal of torsional shearing of nematics. Rheologica Acta, 1997, 36, 485-497.	1.1	4
179	Nonlinear rheology of entangled wormlike micellar solutions predicted by a micelle-slip-spring model. Journal of Rheology, 2022, 66, 639-656.	1.3	4
180	Quantitative modeling of threadlike micellar solution rheology. Rheologica Acta, 2022, 61, 443-457.	1.1	4

#	Article	IF	Citations
181	Quantitative Prediction of Impact Forces In Elastomers. Journal of Engineering Materials and Technology, Transactions of the ASME, 1999, 121, 294-304.	0.8	3
182	Perspectives on Current Issues Is â€œAnthropic Selectionâ€•Science?. Physics in Perspective, 2007, 9, 58-69.	0.2	3
183	Validity of the bead-spring model for describing the linear viscoelastic properties of single-strand DNA under strongly denaturing conditions. Rheologica Acta, 2007, 46, 1153-1160.	1.1	3
184	Experimental Investigation of Time-Dependent Thickness and Composition of Multicomponent Wax Deposits on Cold Surfaces. Energy & Fuels, 2020, 34, 12330-12339.	2.5	3
185	Forward Flux Sampling of Polymer Desorption Paths from a Solid Surface into Dilute Solution. Polymers, 2020, 12, 2275.	2.0	3
186	Extracting free energies of counterion binding to polyelectrolytes by molecular dynamics simulations. Journal of Chemical Physics, 2021, 155, 114902.	1.2	3
187	Molecular Engineering of Peptides. Chemistry and Biology, 2003, 10, 1005-1006.	6.2	2
188	Janus particle rotator-to-lamellar nucleation and growth kinetics. Journal of Chemical Physics, 2017, 146, .	1.2	2
189	Phase diagram of Janus particles: The missing dimension of pressure anisotropy. Journal of Chemical Physics, 2017, 147, 064510.	1.2	2
190	A transport model and constitutive equation for oppositely charged polyelectrolyte mixtures with application to layer-by-layer assembly. Journal of Chemical Physics, 2018, 149, 194901.	1.2	2
191	Strategy for reducing molecular ensemble size for efficient rheological modeling of commercial polymers. Journal of Rheology, 2021, 65, 43-57.	1.3	2
192	Free Energy Cost of Interdigitation of Lamellar Bilayers of Fatty Alcohols with Cationic Surfactants from Molecular Dynamics Simulations. Journal of Physical Chemistry B, 2021, 125, 2389-2397.	1.2	2
193	Methods of Colloidal Simulation. , 2021, , 120-154.		2
194	Effect of Molecular Structure on Rheological Behavior of Nearly Monodisperse H-Shaped Polybutadienes. AIP Conference Proceedings, 2008, , .	0.3	1
195	Accurate Closure for the Configuration Dynamics and Rheology of Dilute Polymer Chains in Arbitrary Flows. Macromolecules, 2021, 54, 6355-6371.	2.2	1
196	Transitioning from underdamped to overdamped behavior in theory and in Langevin simulations of desorption of a particle from a Lennard-Jones potential. Journal of Rheology, 2021, 65, 1235-1243.	1.3	1
197	Modeling the Rheology of Commercial Long Chain Branched Polymer Melts. Materials Research Society Symposia Proceedings, 2003, 804, 133.	0.1	0
198	The Flow and Adsorption of DNA Polymers Near Surfaces. AIP Conference Proceedings, 2004, , .	0.3	0

#	Article	IF	Citations
199	DRYING A SESSILE DROPLET: IMAGING AND ANALYSIS OF TRANSPORT AND DEPOSITION PATTERNS. , 2012, , 1-57.		0