Martin KrÃ¶ger

List of Publications by Year
in descending order

242 papers	10,461 citations	36303 51 h-index	43889 91 g-index
260 all docs	260 docs citations	260 times ranked	7937 citing authors

#	Article	IF	Citations
1	Poly(Nâ€isopropylacrylamide) Phase Diagrams: Fifty Years of Research. Angewandte Chemie - International Edition, 2015, 54, 15342-15367.	13.8	772
2	Shortest multiple disconnected path for the analysis of entanglements in two- and three-dimensional polymeric systems. Computer Physics Communications, 2005, 168, 209-232.	7.5	387
3	Simple models for complex nonequilibrium fluids. Physics Reports, 2004, 390, 453-551.	25.6	268
4	Shape effect in cellular uptake of PEGylated nanoparticles: comparison between sphere, rod, cube and disk. Nanoscale, 2015, 7, 16631-16646.	5.6	268
5	Topological analysis of polymeric melts: Chain-length effects and fast-converging estimators for entanglement length. Physical Review E, 2009, 80, 031803.	2.1	260
6	Rheology and structural changes of polymer melts via nonequilibrium molecular dynamics. Journal of Rheology, 1993, 37, 1057-1079.	2.6	214
7	Rheological Evidence for a Dynamical Crossover in Polymer Melts via Nonequilibrium Molecular Dynamics. Physical Review Letters, 2000, 85, 1128-1131.	7.8	209
8	Crossover from the Rouse to the Entangled Polymer Melt Regime:Â Signals from Long, Detailed Atomistic Molecular Dynamics Simulations, Supported by Rheological Experiments. Macromolecules, 2003, 36, 1376-1387.	4.8	198
9	Primitive Path Networks Generated by Annealing and Geometrical Methods:Â Insights into Differences. Macromolecules, 2007, 40, 2897-2903.	4.8	188
10	Endocytosis of PEGylated nanoparticles accompanied by structural and free energy changes of the grafted polyethylene glycol. Biomaterials, 2014, 35, 8467-8478.	11.4	176
11	Challenges in Multiscale Modeling of Polymer Dynamics. Polymers, 2013, 5, 751-832.	4.5	173
12	Combined Molecular Algorithms for the Generation, Equilibration and Topological Analysis of Entangled Polymers: Methodology and Performance. International Journal of Molecular Sciences, 2009, 10, 5054-5089.	4.1	160
13	Nanoparticle Effect on the Dynamics of Polymer Chains and Their Entanglement Network. Physical Review Letters, 2012, 109, 118001.	7.8	160
14	Flow Effects on Melt Structure and Entanglement Network of Linear Polymers: Results from a Nonequilibrium Molecular Dynamics Simulation Study of a Polyethylene Melt in Steady Shear. Macromolecules, 2010, 43, 6886-6902.	4.8	152
15	Primitive Path Identification and Entanglement Statistics in Polymer Melts:â€‰ Results from Direct Topological Analysis on Atomistic Polyethylene Models. Macromolecules, 2006, 39, 4207-4216.	4.8	146
16	Effect of charge, hydrophobicity, and sequence of nucleoporins on the translocation of model particles through the nuclear pore complex. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3363-3368.	7.1	139
17	Tuning Polymer Thickness: Synthesis and Scaling Theory of Homologous Series of Dendronized Polymers. Journal of the American Chemical Society, 2009, 131, 11841-11854.	13.7	130
18	Polymer Melts under Uniaxial Elongational Flow:Â Stressâ^'Optical Behavior from Experiments and Nonequilibrium Molecular Dynamics Computer Simulations. Macromolecules, 1997, 30, 526-539.	4.8	117

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19	Viscoelastic flows studied by smoothed particle dynamics. Journal of Non-Newtonian Fluid Mechanics, 2002, 105, 35-51.	2.4	116
20	A predictive multiscale computational framework for viscoelastic properties of linear polymers. Polymer, 2012, 53, 5935-5952.	3.8	115
21	Modeling of Polymer Structure and Conformations in Polymer Nanocomposites from Atomistic to Mesoscale: A Review. Polymer Reviews, 2016, 56, 385-428.	10.9	114
22	The Largest Synthetic Structure with Molecular Precision: Towards a Molecular Object. Angewandte Chemie - International Edition, 2011, 50, 737-740.	13.8	111
23	A thermodynamically admissible reptation model for fast flows of entangled polymers. II. Model predictions for shear and extensional flows. Journal of Rheology, 2000, 44, 1293-1317.	2.6	108
24	Direct Observation of the Dynamics of Semiflexible Polymers in Shear Flow. Physical Review Letters, 2013, 110, 108302.	7.8	102
25	Quantifying chain reptation in entangled polymer melts: Topological and dynamical mapping of atomistic simulation results onto the tube model. Journal of Chemical Physics, 2010, 132, 124904.	3.0	101
26	Structure and Dynamics of Dilute Polymer Solutions under Shear Flow via Nonequilibrium Molecular Dynamics. Macromolecules, 1999, 32, 5660-5672.	4.8	99
27	Nanoparticle Geometrical Effect on Structure, Dynamics and Anisotropic Viscosity of Polyethylene Nanocomposites. Macromolecules, 2012, 45, 2099-2112.	4.8	99
28	A theoretical evaluation of the effects of carbon nanotube entanglement and bundling on the structural and mechanical properties of buckypaper. Carbon, 2012, 50, 1793-1806.	10.3	97
29	Influence of Nanorod Inclusions on Structure and Primitive Path Network of Polymer Nanocomposites at Equilibrium and Under Deformation. Macromolecules, 2011, 44, 1034-1045.	4.8	91
30	Morphology Control of Hairy Nanopores. ACS Nano, 2011, 5, 4737-4747.	14.6	89
31	Molecular simulation guided constitutive modeling on finite strain viscoelasticity of elastomers. Journal of the Mechanics and Physics of Solids, 2016, 88, 204-226.	4.8	87
32	Collapse of Thermoresponsive Brushes and the Tuning of Protein Adsorption. Macromolecules, 2011, 44, 6986-7005.	4.8	85
33	From Dendrimers to Dendronized Polymers and Forests: Scaling Theory and its Limitations. Macromolecules, 2010, 43, 6213-6224.	4.8	80
34	Adsorption of core-shell nanoparticles at liquidâ€"liquid interfaces. Soft Matter, 2011, 7, 7663.	2.7	78
35	Simple, admissible, and accurate approximants of the inverse Langevin and Brillouin functions, relevant for strong polymer deformations and flows. Journal of Non-Newtonian Fluid Mechanics, 2015, 223, 77-87.	2.4	75
36	Molecular dynamics simulations of polymer crystallization under confinement: Entanglement effect. Polymer, 2017, 109, 71-84.	3.8	75

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37	Wormlike micelles under shear flow: A microscopic model studied by nonequilibrium-molecular-dynamics computer simulations. Physical Review E, 1996, 53, 2531-2536.	2.1	74
38	Dynamic structure of unentangled polymer chains in the vicinity of non-attractive nanoparticles. Soft Matter, 2014, 10, 1723.	2.7	73
39	Colloid-Brush Interactions: The Effect of Solvent Quality. Macromolecules, 2011, 44, 3622-3638.	4.8	69
40	Variance reduced Brownian simulation of a bead-spring chain under steady shear flow considering hydrodynamic interaction effects. Journal of Chemical Physics, 2000, 113, 4767-4773.	3.0	65
41	Dendronized Polymers: Molecular Objects between Conventional Linear Polymers and Colloidal Particles. ACS Macro Letters, 2014, 3, 991-998.	4.8	62
42	Ternary Protein Adsorption onto Brushes: Strong versus Weak. Langmuir, 2009, 25, 11621-11634.	3.5	61
43	A Twoâ€Dimensional Polymer Synthesized at the Air/Water Interface. Angewandte Chemie - International Edition, 2018, 57, 10584-10588.	13.8	61
44	Analytical solution of the SIR-model for the temporal evolution of epidemics. Part A: time-independent reproduction factor. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 505601.	2.1	61
45	Structure, Dimensions, and Entanglement Statistics of Long Linear Polyethylene Chains. Journal of Physical Chemistry B, 2009, 113, 442-455.	2.6	60
46	Aggregation of polyethylene glycol polymers suppresses receptor-mediated endocytosis of PEGylated liposomes. Nanoscale, 2018, 10, 4545-4560.	5.6	60
47	Primitive chain network study on uncrosslinked and crosslinked cis-polyisoprene polymers. Polymer, 2011, 52, 5867-5878.	3.8	59
48	Chaotic orientational behavior of a nematic liquid crystal subjected to a steady shear flow. Physical Review E, 2002, 66, 040702.	2.1	58
49	Molecular dynamics of model liquid crystals composed of semiflexible molecules. Physical Review E, 1996, 54, 5178-5186.	2.1	56
50	Entanglements and Crystallization of Concentrated Polymer Solutions: Molecular Dynamics Simulations. Macromolecules, 2016, 49, 9017-9025.	4.8	56
51	Chaotic and regular shear-induced orientational dynamics of nematic liquid crystals. Physica A: Statistical Mechanics and Its Applications, 2002, 315, 537-568.	2.6	54
52	Theoretical considerations on mechanisms of harvesting cells cultured on thermoresponsive polymer brushes. Biomaterials, 2012, 33, 4975-4987.	11.4	53
53	Polymer Brushes under Shear: Molecular Dynamics Simulations Compared to Experiments. Langmuir, 2015, 31, 4798-4805.	3.5	53
54	Consistent closure schemes for statistical models of anisotropic fluids. Journal of Non-Newtonian Fluid Mechanics, 2008, 149, 40-55.	2.4	52

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55	Rheological and entanglement characteristics of linear-chain polyethylene liquids in planar Couette and planar elongational flows. Journal of Non-Newtonian Fluid Mechanics, 2008, 152, 168-183.	2.4	51
56	Kinetics of gene derepression by ERK signaling. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 10330-10335.	7.1	51
57	Boundaries steer the contraction of active gels. Nature Communications, 2016, 7, 13120.	12.8	50
58	Thermomechanical properties of the WCAâ€"Lennard-Jones model system in its fluid and solid states. Physica A: Statistical Mechanics and Its Applications, 1998, 250, 58-82.	2.6	49
59	Universal Scaling, Entanglements, and Knots of Model Chain Molecules. Physical Review Letters, 2008, 101, 265702.	7.8	49
60	Ordering and Crystallization of Entangled Polyethylene Melts under Uniaxial Tension: A Molecular Dynamics Study. Macromolecules, 2018, 51, 9635-9648.	4.8	49
61	Magnetoviscosity of semidilute ferrofluids and the role of dipolar interactions: Comparison of molecular simulations and dynamical mean-field theory. Physical Review E, 2005, 71, 031205.	2.1	48
62	Systematic time-scale-bridging molecular dynamics applied to flowing polymer melts. Physical Review E, 2009, 79, 011802.	2.1	48
63	Entanglements and Dynamics of Polymer Melts near a SWCNT. Macromolecules, 2012, 45, 7274-7281.	4.8	48
64	Viscoelasticity of polymeric melts and concentrated solutions. The effect of flow-induced alignment of chain ends. Physica A: Statistical Mechanics and Its Applications, 1993, 195, 336-353.	2.6	47
65	Modeling of Entangled Polymer Diffusion in Melts and Nanocomposites: A Review. Polymers, 2019, 11, 876.	4.5	47
66	Height and Width of Adsorbed Dendronized Polymers: Electron and Atomic Force Microscopy of Homologous Series. Macromolecules, 2011, 44, 6785-6792.	4.8	46
67	Evolution of fivefold local symmetry during crystal nucleation and growth in dense hard-sphere packings. Soft Matter, 2012, 8, 844-858.	2.7	46
68	Covid-19 Predictions Using a Gauss Model, Based on Data from April 2. Physics, 2020, 2, 197-212.	1.4	46
69	Viscosity coefficients for anisotropic, nematic fluids based on structural theories of suspensions. Journal of Chemical Physics, 1995, 103, 807-817.	3.0	45
70	Rotation and Deformation of a Finitely Extendable Flexible Polymer Molecule in a Steady Shear Flow. Macromolecules, 2002, 35, 8621-8630.	4.8	45
71	Random packing of model polymers: local structure, topological hindrance and universal scaling. Soft Matter, 2009, 5, 1762.	2.7	45
72	Viscoelasticity of carbon nanotube buckypaper: zippingâ€"unzipping mechanism and entanglement effects. Soft Matter, 2012, 8, 7822.	2.7	44

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73	Efficient hybrid algorithm for the dynamic creation of wormlike chains in solutions, brushes, melts and glasses. Computer Physics Communications, 1999, 118, 278-298.	7.5	42
74	Magnetization dynamics, rheology, and an effective description of ferromagnetic units in dilute suspension. Physical Review E, 2002, 66, 021501.	2.1	42
75	Dynamics of interacting magnetic nanoparticles: effective behavior from competition between Brownian and NÃ©el relaxation. Physical Chemistry Chemical Physics, 2020, 22, 22244-22259.	2.8	41
76	Projection from an atomistic chain contour to its primitive path. Polymer, 2002, 43, 477-487.	3.8	38
77	Analytical solution of the SIR-model for the temporal evolution of epidemics: part B. Semi-time case. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 175601.	2.1	38
78	Shear modulus of fluids and solids. Physica A: Statistical Mechanics and Its Applications, 1997, 239, 449-466.	2.6	37
79	Linear Viscoelastic Behavior of Unentangled Polymer Melts via Non-Equilibrium Molecular Dynamics. Macromolecular Theory and Simulations, 2004, 13, 748-753.	1.4	37
80	Effect of polymer solvent on the mechanical properties of entangled polymer gels: Coarse-grained molecular simulation. Polymer, 2013, 54, 2555-2564.	3.8	37
81	Primitive-path statistics of entangled polymers: mapping multi-chain simulations onto single-chain mean-field models. New Journal of Physics, 2014, 16, 015027.	2.9	37
82	Regular and chaotic orientational and rheological behaviour of liquid crystals. Journal of Physics Condensed Matter, 2004, 16, S3835-S3859.	1.8	35
83	Atomistic Modeling of Plastic Deformation in Semicrystalline Polyethylene: Role of Interphase Topology, Entanglements, and Chain Dynamics. Macromolecules, 2020, 53, 4605-4617.	4.8	35
84	Magnetoviscosity and orientational order parameters of dilute ferrofluids. Journal of Chemical Physics, 2002, 116, 9078-9088.	3.0	34
85	Canonical distribution functions in polymer dynamics. (II). Liquid-crystalline polymers. Physica A: Statistical Mechanics and Its Applications, 2003, 319, 134-150.	2.6	34
86	Magnetoviscous model fluids. Journal of Physics Condensed Matter, 2003, 15, S1403-S1423.	1.8	34
87	Rheology and Packing of Dendronized Polymers. Macromolecules, 2016, 49, 7054-7068.	4.8	34
88	Reconfigurable artificial microswimmers with internal feedback. Nature Communications, 2021, 12, 4762.	12.8	34
89	On a quantity describing the degree of chain entanglement in linear polymer systems. Macromolecular Theory and Simulations, 1994, 3, 639-647.	1.4	33
90	Rheology: From simple and to complex fluids. Physica A: Statistical Mechanics and Its Applications, 1997, 240, 126-144.	2.6	33

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91	Thermoresponsive Cell Culture Substrates Based on PNIPAM Brushes Functionalized with Adhesion Peptides: Theoretical Considerations of Mechanism and Design. Langmuir, 2012, 28, 16623-16637.	3.5	32
92	Phase behavior and structure of Janus fluids. Physical Review E, 2003, 67, 041209.	2.1	31
93	Selfâ€Folding of Charged Single Dendronized Polymers. Advanced Materials, 2008, 20, 3204-3210.	21.0	31
94	Automated symbolic calculations in nonequilibrium thermodynamics. Computer Physics Communications, 2010, 181, 2149-2157.	7.5	30
95	Molecularly derived constitutive equation for low-molecular polymer melts from thermodynamically guided simulation. Journal of Rheology, 2011, 55, 69-93.	2.6	30
96	Fast equilibration protocol for million atom systems of highly entangled linear polyethylene chains. Journal of Chemical Physics, 2016, 144, 154901.	3.0	30
97	Communication: Appearance of undershoots in start-up shear: Experimental findings captured by tumbling-snake dynamics. Journal of Chemical Physics, 2017, 146, 161101.	3.0	30
98	A simple example for comparing GENERIC with rational non-equilibrium thermodynamics. Physica A: Statistical Mechanics and Its Applications, 2000, 285, 448-466.	2.6	29
99	Understanding Dynamics in Binary Mixtures of Entangled cis-1,4-Polybutadiene Melts at the Level of Primitive Path Segments by Mapping Atomistic Simulation Data onto the Tube Model. Macromolecules, 2010, 43, 8239-8250.	4.8	29
100	Writhe and mutual entanglement combine to give the entanglement length. Physical Review E, 2013, 88, 062604.	2.1	29
101	Microscopic Origin of the Non-Newtonian Viscosity of Semiflexible Polymer Solutions in the Semidilute Regime. ACS Macro Letters, 2014, 3, 136-140.	4.8	29
102	Self-assembly of core-polyethylene glycol-lipid shell (CPLS) nanoparticles and their potential as drug delivery vehicles. Nanoscale, 2016, 8, 14821-14835.	5.6	29
103	Size of graphene sheets determines the structural and mechanical properties of 3D graphene foams. Nanotechnology, 2018, 29, 104001.	2.6	29
104	Unified Analytic Expressions for the Entanglement Length, Tube Diameter, and Plateau Modulus of Polymer Melts. Physical Review Letters, 2020, 124, 147801.	7.8	28
105	Anisotropy of the magnetoviscous effect in ferrofluids. Physical Review E, 2005, 71, 051201.	2.1	27
106	Fibers with Integrated Mechanochemical Switches: Minimalistic Design Principles Derived from Fibronectin. Biophysical Journal, 2012, 103, 1909-1918.	0.5	27
107	Influence of molecular architecture on the entanglement network: topological analysis of linear, long- and short-chain branched polyethylene melts via Monte Carlo simulations. Soft Matter, 2016, 12, 3770-3786.	2.7	27
108	Analytical Modeling of the Temporal Evolution of Epidemics Outbreaks Accounting for Vaccinations. Physics, 2021, 3, 386-426.	1.4	27

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109	An extended FENE dumbbell theory for concentration dependent shear-induced anisotropy in dilute polymer solutions. Journal of Non-Newtonian Fluid Mechanics, 1996, 62, 235-251.	2.4	26
110	Recognition and analysis of local structure in polycrystalline configurations. Computer Physics Communications, 2002, 145, 371-384.	7.5	26
111	Formation of double helical and filamentous structures in models of physical and chemical gels. Soft Matter, 2008, 4, 18-28.	2.7	26
112	Computer simulation of dendronized polymers: organization and characterization at the atomistic level. RSC Advances, 2013, 3, 126-140.	3.6	26
113	The effect of polymer chain length on the mechanical properties of triblock copolymer gels. Chemical Physics Letters, 2014, 612, 157-161.	2.6	26
114	Structure and rheology of model-ferrofluids under shear flow. Journal of Magnetism and Magnetic Materials, 2005, 289, 325-327.	2.3	25
115	Nonaffine Deformation of Inherent Structure as a Static Signature of Cooperativity in Supercooled Liquids. Physical Review Letters, 2008, 101, 095501.	7.8	25
116	Unraveling two-dimensional polymerization in the single crystal. Journal of Applied Crystallography, 2018, 51, 481-497.	4.5	25
117	Influence of Chain Stiffness, Grafting Density and Normal Load on the Tribological and Structural Behavior of Polymer Brushes: A Nonequilibrium-Molecular-Dynamics Study. Polymers, 2016, 8, 254.	4.5	24
118	Self-assembled coreâ€“polyethylene glycolâ€“lipid shell nanoparticles demonstrate high stability in shear flow. Physical Chemistry Chemical Physics, 2017, 19, 13294-13306.	2.8	23
119	Structure Elucidation of 2D Polymer Monolayers Based on Crystallization Estimates Derived from Tip-Enhanced Raman Spectroscopy (TERS) Polymerization Conversion Data. Journal of the American Chemical Society, 2019, 141, 9867-9871.	13.7	23
120	Dynamics of colloidal suspensions of ferromagnetic particles in plane Couette flow: Comparison of approximate solutions with Brownian dynamics simulations. Physical Review E, 2003, 67, 061401.	2.1	22
121	Anisotropic self-diffusion in ferrofluids studied via Brownian dynamics simulations. Physical Review E, 2005, 72, 031504.	2.1	22
122	From hyperbolic regularization to exact hydrodynamics for linearized Gradâ€™s equations. Physical Review E, 2007, 75, 051204.	2.1	22
123	Computational study on entanglement length and pore size of carbon nanotube buckypaper. Applied Physics Letters, 2012, 100, .	3.3	22
124	Effect of Crosslinking on the Microtribological Behavior of Model Polymer Brushes. Tribology Letters, 2016, 63, 1.	2.6	22
125	From atomistic simulation to the dynamics, structure and helical network formation of dendronized polymers: The Janus chain model. Journal of Chemical Physics, 2007, 127, 094904.	3.0	21
126	Derivation of Frank-Ericksen elastic coefficients for polydomain nematics from mean-field molecular theory for anisotropic particles. Journal of Chemical Physics, 2007, 127, 034903.	3.0	21

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127	Lubricated optical rheometer for the study of two-dimensional complex flows of polymer melts. Journal of Non-Newtonian Fluid Mechanics, 2008, 150, 43-55.	2.4	21
128	Exact Linear Hydrodynamics from the Boltzmann Equation. Physical Review Letters, 2008, 100, 214503.	7.8	21
129	Synthetic regimes due to packing constraints in dendritic molecules confirmed by labelling experiments. Nature Communications, 2013, 4, 1993.	12.8	21
130	Boltzmann equation and hydrodynamic fluctuations. Physical Review E, 2009, 80, 051202.	2.1	20
131	Using Mesoscopic Models to Design Strong and Tough Biomimetic Polymer Networks. Langmuir, 2011, 27, 13796-13805.	3.5	20
132	Computer Simulation of Fifth Generation Dendronized Polymers: Impact of Charge on Internal Organization. Journal of Physical Chemistry B, 2013, 117, 6007-6017.	2.6	20
133	Explicit formulae for the peak time of an epidemic from the SIR model. Which approximant to use?. Physica D: Nonlinear Phenomena, 2021, 425, 132981.	2.8	20
134	A Detailed Examination of the Topological Constraints of Lamellae-Forming Block Copolymers. Macromolecules, 2018, 51, 2110-2124.	4.8	19
135	Combined Experimental and Simulation Studies of Cross-Linked Polymer Brushes under Shear. Macromolecules, 2018, 51, 10174-10183.	4.8	19
136	NEMD-Computersimulation zur Rheologie von Polymerschmelzen / NEMD Computer Simulation of Polymer Melt Rheology. Applied Rheology, 1995, 5, 66-71.	5.2	19
137	Dynamics and Wetting Behavior of Coreâ€“Shell Soft Particles at a Fluidâ€“Fluid Interface. Langmuir, 2018, 34, 15370-15382.	3.5	18
138	Insights from modeling into structure, entanglements, and dynamics in attractive polymer nanocomposites. Soft Matter, 2021, 17, 6362-6373.	2.7	18
139	Symbolic test of the Jacobi identity for given generalized â€˜Poissonâ€™ bracket. Computer Physics Communications, 2001, 137, 325-340.	7.5	17
140	Filamentous networks in phase-separating two-dimensional gels. Europhysics Letters, 2007, 77, 58007.	2.0	17
141	Hyperbolicity of exact hydrodynamics for three-dimensional linearized Gradâ€™s equations. Physical Review E, 2007, 76, 022201.	2.1	17
142	Carbon Nanotube Length Governs the Viscoelasticity and Permeability of Buckypaper. Polymers, 2017, 9, 115.	4.5	17
143	Crossover between short- and long-time behavior of stress fluctuations and viscoelasticity of liquids. Physical Review E, 2003, 67, 042201.	2.1	16
144	Structural changes and viscoplastic behavior of a generic embedded-atom model metal in steady shear flow. Physical Review E, 2004, 69, 021509.	2.1	16

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145	Beyond-equilibrium molecular dynamics of a rarefied gas subjected to shear flow. Journal of Non-Newtonian Fluid Mechanics, 2004, 120, 175-187.	2.4	16
146	Interactions in dendronized polymers: intramolecular dominates intermolecular. Soft Matter, 2014, 10, 1032.	2.7	16
147	On the Shape and Rheology of Linear Micelles in Dilute Solutions. Journal De Physique II, 1997, 7, 931-946.	0.9	16
148	Thermophysical properties of gases, liquids, and solids composed of particles interacting with a short-range attractive potential. Physical Review E, 2001, 64, 011201.	2.1	15
149	Lubricated cross-slot flow of a low density polyethylene melt. Journal of Non-Newtonian Fluid Mechanics, 2008, 154, 52-64.	2.4	15
150	Pulling-force-induced elongation and alignment effects on entanglement and knotting characteristics of linear polymers in a melt. Physical Review E, 2014, 90, 042602.	2.1	15
151	Miscibility and Nanoparticle Diffusion in Ionic Nanocomposites. Polymers, 2018, 10, 1010.	4.5	15
152	Drag on a spherical particle at the airâ€“liquid interface: Interplay between compressibility, Marangoni flow, and surface viscosities. Physics of Fluids, 2021, 33, .	4.0	15
153	Assessing numerical methods for molecular and particle simulation. Soft Matter, 2017, 13, 8565-8578.	2.7	14
154	Unifying kinetic approach to phoretic forces and torques onto moving and rotating convex particles. Journal of Chemical Physics, 2006, 125, 044105.	3.0	13
155	Non-constant link tension coefficient in the tumbling-snake model subjected to simple shear. Journal of Chemical Physics, 2017, 147, 174903.	3.0	13
156	Mesoscopic model for the viscosities of nematic liquid crystals. Physical Review E, 1999, 60, 4226-4234.	2.1	12
157	Flow of branched polymer melts in a lubricated cross-slot channel: a combined computational and experimental study. Rheologica Acta, 2009, 48, 97-108.	2.4	12
158	Modelling and confocal microscopy of biopolymer mixtures in confined geometries. Soft Matter, 2010, 6, 2713.	2.7	12
159	Solution of the complete Curtiss-Bird model for polymeric liquids subjected to simple shear flow. Journal of Chemical Physics, 2016, 144, 124905.	3.0	12
160	Gaussian Doubling Times and Reproduction Factors of the COVID-19 Pandemic Disease. Frontiers in Physics, 2020, 8, .	2.1	12
161	Tuning Electrokinetic Flow, Ionic Conductance, and Selectivity in a Solid-State Nanopore Modified with a pH-Responsive Polyelectrolyte Brush: A Molecular Theory Approach. Journal of Physical Chemistry C, 2020, 124, 18513-18531.	3.1	12
162	Sticky Rouse Time Features the Self-Adhesion of Supramolecular Polymer Networks. Macromolecules, 2021, 54, 5053-5064.	4.8	12

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163	A program to compute the angular coefficients of the relativistic one-electron hyperfine structure parameters. Computer Physics Communications, 1995, 90, 381-387.	7.5	11
164	Branching Defects in Dendritic Molecules: Coupling Efficiency and Congestion Effects. Macromolecules, 2013, 46, 7550-7564.	4.8	11
165	Modeling Nanosized Single Molecule Objects: Dendronized Polymers Adsorbed onto Mica. Journal of Physical Chemistry C, 2015, 119, 3746-3753.	3.1	11
166	What causes the anomalous aggregation in pluronic aqueous solutions?. Soft Matter, 2018, 14, 7653-7663.	2.7	11
167	Gasâ€"liquid phase equilibrium of a model Langmuir monolayer captured by a multiscale approach. Physical Chemistry Chemical Physics, 2019, 21, 2295-2306.	2.8	11
168	3D Conformations of Thick Synthetic Polymer Chains Observed by Cryogenic Electron Microscopy. ACS Nano, 2019, 13, 3466-3473.	14.6	11
169	Validation and Refinement of Unified Analytic Model for Flexible and Semiflexible Polymer Melt Entanglement. Macromolecules, 2022, 55, 3613-3626.	4.8	11
170	Pressure of fluids and solids composed of particles interacting with a short-range repulsive potential. Physical Review E, 2000, 61, 4629-4631.	2.1	10
171	Surface Disentanglement and Slip in a Polymer Melt: A Molecular Dynamics Study. Macromolecules, 2018, 51, 8996-9010.	4.8	10
172	Pushing Synthesis toward the Maximum Generation Range of Dendritic Macromolecules. Macromolecules, 2018, 51, 5420-5429.	4.8	10
173	A Twoâ€Dimensional Polymer Synthesized at the Air/Water Interface. Angewandte Chemie, 2018, 130, 10744-10748.	2.0	10
174	Fokker-Planck calculations of the viscosities of biaxial fluids. Physical Review E, 1997, 56, 1804-1807.	2.1	9
175	Phase Behavior and Formation Dynamics of Helically Wound Networks: Generalized Janus Chain Model. Macromolecules, 2009, 42, 576-579.	4.8	9
176	Smooth full field reconstruction of velocity and its gradients from noisy scattered velocimetry data in a cross-slot flow. Journal of Rheology, 2011, 55, 353-377.	2.6	9
177	Interplay between ligand mobility and nanoparticle geometry during cellular uptake of PEGylated liposomes and bicelles. Nanoscale, 2019, 11, 15971-15983.	5.6	9
178	A two-enzyme cascade reaction consisting of two reaction pathways. Studies in bulk solution for understanding the performance of a flow-through device with immobilised enzymes. RSC Advances, 2020, 10, 18655-18676.	3.6	9
179	Towards Multiscale Modeling of Metals via Embedded Particle Computer Simulation. Multiscale Modeling and Simulation, 2003, 1, 25-39.	1.6	8
180	Ideal contribution to the macroscopic quasiequilibrium entropy of anisotropic fluids. Physical Review E, 2011, 83, 061713.	2.1	8

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