

David C Morse

List of Publications by Year in descending order

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94433

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3666
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#	ARTICLE	IF	CITATIONS
1	Nonlinear dynamics in micellar surfactant solutions. I. Kinetics. <i>Physical Review E</i> , 2022, 105, 034602.	2.1	3
2	Nonlinear dynamics in micellar surfactant solutions. II. Diffusion. <i>Physical Review E</i> , 2022, 105, 034603.	2.1	2
3	Adsorption of Charge Sequence-Specific Polydisperse Polyelectrolytes. <i>Macromolecules</i> , 2022, 55, 3030-3038.	4.8	2
4	Identifying a critical micelle temperature in simulations of disordered asymmetric diblock copolymer melts. <i>Physical Review Materials</i> , 2021, 5, .	2.4	3
5	Simulation of diblock copolymer surfactants. III. Equilibrium interfacial adsorption. <i>Physical Review E</i> , 2020, 102, 022605.	2.1	5
6	Order-Disorder Transitions and Free Energies in Asymmetric Diblock Copolymers. <i>Macromolecules</i> , 2020, 53, 7399-7409.	4.8	13
7	Open-source code for self-consistent field theory calculations of block polymer phase behavior on graphics processing units. <i>European Physical Journal E</i> , 2020, 43, 15.	1.6	24
8	Simulation of diblock copolymer surfactants. I. Micelle free energies. <i>Physical Review E</i> , 2019, 100, 012602.	2.1	10
9	Simulation of diblock copolymer surfactants. II. Micelle kinetics. <i>Physical Review E</i> , 2019, 100, 012603.	2.1	10
10	Mechanism of Micelle Birth and Death. <i>Physical Review Letters</i> , 2019, 123, 038003.	7.8	23
11	Dynamics and Viscoelasticity of Disordered Melts of Symmetric Diblock Copolymers. <i>Macromolecules</i> , 2019, 52, 7762-7778.	4.8	5
12	Influence of charge sequence on the adsorption of polyelectrolytes to oppositely-charged polyelectrolyte brushes. <i>Soft Matter</i> , 2019, 15, 5431-5442.	2.7	13
13	Effects of Segment Length Asymmetry in Ternary Diblock Co-polymer-Homopolymer Mixtures. <i>Macromolecules</i> , 2019, 52, 4091-4102.	4.8	11
14	Correlations in Disordered Melts of Asymmetric Diblock Copolymers. <i>Macromolecules</i> , 2018, 51, 2335-2348.	4.8	13
15	Network Model of the Disordered Phase in Symmetric Diblock Copolymer Melts. <i>Physical Review Letters</i> , 2018, 121, 127802.	7.8	13
16	Equilibration of Micelle-Polyelectrolyte Complexes: Mechanistic Differences between Static and Annealed Charge Distributions. <i>Journal of Physical Chemistry B</i> , 2017, 121, 4631-4641.	2.6	12
17	Accelerating self-consistent field theory of block polymers in a variable unit cell. <i>Journal of Chemical Physics</i> , 2017, 146, 244902.	3.0	31
18	A Reptation Model of Slip at Entangled Polymer-Polymer Interfaces. <i>Macromolecules</i> , 2016, 49, 7032-7044.	4.8	7

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19	Phase Behavior of Diblock Copolymer–Homopolymer Ternary Blends: Congruent First-Order Lamellar–Disorder Transition. <i>Macromolecules</i> , 2016, 49, 7928-7944.	4.8	30
20	Broadly Accessible Self-Consistent Field Theory for Block Polymer Materials Discovery. <i>Macromolecules</i> , 2016, 49, 4675-4690.	4.8	150
21	Particle-directed assembly of semiflexible polymer chains. <i>Soft Matter</i> , 2016, 12, 6214-6222.	2.7	1
22	Commensurability and finite size effects in lattice simulations of diblock copolymers. <i>Soft Matter</i> , 2015, 11, 4862-4867.	2.7	22
23	Interfacial Tension Measurement and Micellization in a Polymer Blend with Copolymer Surfactant: A False Critical Micelle Concentration. <i>Macromolecules</i> , 2015, 48, 8154-8168.	4.8	13
24	Universal Phenomenology of Symmetric Diblock Copolymers near the Order–Disorder Transition. <i>Macromolecules</i> , 2015, 48, 819-839.	4.8	83
25	Strong scaling of general-purpose molecular dynamics simulations on GPUs. <i>Computer Physics Communications</i> , 2015, 192, 97-107.	7.5	546
26	Fluctuations, Phase Transitions, and Latent Heat in Short Diblock Copolymers: Comparison of Experiment, Simulation, and Theory. <i>Macromolecules</i> , 2015, 48, 2801-2811.	4.8	33
27	Universality of Block Copolymer Melts. <i>Physical Review Letters</i> , 2014, 113, 068302.	7.8	102
28	Collective and Single-Chain Correlations in Disordered Melts of Symmetric Diblock Copolymers: Quantitative Comparison of Simulations and Theory. <i>Macromolecules</i> , 2014, 47, 851-869.	4.8	56
29	Fluctuations in Symmetric Diblock Copolymers: Testing Theories Old and New. <i>Physical Review Letters</i> , 2012, 108, 238301.	7.8	50
30	Translationally Invariant Slip-Spring Model for Entangled Polymer Dynamics. <i>Physical Review Letters</i> , 2012, 109, 148302.	7.8	102
31	Test of a scaling hypothesis for the structure factor of disordered diblock copolymer melts. <i>Soft Matter</i> , 2012, 8, 11310.	2.7	34
32	Apparent Critical Micelle Concentrations in Block Copolymer/Ionic Liquid Solutions: Remarkably Weak Dependence on Solvophobic Block Molecular Weight. <i>Macromolecules</i> , 2012, 45, 4818-4829.	4.8	47
33	Relationships among coarse-grained field theories of fluctuations in polymer liquids. <i>Journal of Chemical Physics</i> , 2011, 134, 084902.	3.0	15
34	Renormalized one-loop theory of correlations in disordered diblock copolymers. <i>Journal of Chemical Physics</i> , 2011, 135, 084902.	3.0	38
35	Micellization kinetics of diblock copolymers in a homopolymer matrix: a self-consistent field study. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 284109.	1.8	6
36	Phase Behavior of Nonfrustrated ABC Triblock Copolymers: Weak and Intermediate Segregation. <i>Macromolecules</i> , 2010, 43, 5128-5136.	4.8	83

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37	Annealing of Cocontinuous Polymer Blends: Effect of Block Copolymer Molecular Weight and Architecture. <i>Macromolecules</i> , 2010, 43, 5024-5032.	4.8	61
38	Renormalized one-loop theory of correlations in polymer blends. <i>Journal of Chemical Physics</i> , 2009, 130, 224902.	3.0	49
39	On the chain length dependence of local correlations in polymer melts and a perturbation theory of symmetric polymer blends. <i>Journal of Chemical Physics</i> , 2009, 130, 224901.	3.0	45
40	Polymer-polymer interfacial slip in multilayered films. <i>Journal of Rheology</i> , 2009, 53, 893-915.	2.6	73
41	Linear Response and Stability of Ordered Phases of Block Copolymer Melts. <i>Macromolecules</i> , 2008, 41, 942-954.	4.8	62
42	Brownian dynamics algorithm for entangled wormlike threads. <i>Journal of Chemical Physics</i> , 2007, 126, 094906.	3.0	11
43	Simulations of dynamics and viscoelasticity in highly entangled solutions of semiflexible rods. <i>Physical Review E</i> , 2007, 76, 010501.	2.1	25
44	Renormalization of the one-loop theory of fluctuations in polymer blends and diblock copolymer melts. <i>Physical Review E</i> , 2007, 76, 061802.	2.1	75
45	Diffusion of Copolymer Surfactant to a Polymer/Polymer Interface. <i>Macromolecules</i> , 2007, 40, 3831-3839.	4.8	7
46	Ultralow Interfacial Tensions of Polymer/Polymer Interfaces with Diblock Copolymer Surfactants. <i>Macromolecules</i> , 2007, 40, 3819-3830.	4.8	39
47	SCFT Study of Nonfrustrated ABC Triblock Copolymer Melts. <i>Macromolecules</i> , 2007, 40, 4654-4668.	4.8	163
48	Diblock Copolymer Surfactants in Immiscible Homopolymer Blends: Swollen Micelles and Interfacial Tension. <i>Macromolecules</i> , 2006, 39, 7746-7756.	4.8	24
49	Diblock Copolymer Surfactants in Immiscible Homopolymer Blends: Interfacial Bending Elasticity. <i>Macromolecules</i> , 2006, 39, 7397-7406.	4.8	20
50	Diagrammatic analysis of correlations in polymer fluids: Cluster diagrams via Edwards's field theory. <i>Annals of Physics</i> , 2006, 321, 2318-2389.	2.8	21
51	Landau theory of the orthorhombic phase. <i>Physical Review E</i> , 2006, 74, 011803.	2.1	35
52	Brownian dynamics algorithm for bead-rod semiflexible chain with anisotropic friction. <i>Journal of Chemical Physics</i> , 2005, 122, 084903.	3.0	45
53	Orthorhombic Network in Triblock and Diblock Copolymer Melts. <i>Physical Review Letters</i> , 2005, 94, 208302.	7.8	264
54	Theory of Constrained Brownian Motion. <i>Advances in Chemical Physics</i> , 2004, , 65-189.	0.3	34

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55	Design of ABC Triblock Copolymers near the ODT with the Random Phase Approximation. <i>Macromolecules</i> , 2003, 36, 782-792.	4.8	98
56	Linear Elasticity of Cubic Phases in Block Copolymer Melts by Self-Consistent Field Theory. <i>Macromolecules</i> , 2003, 36, 3764-3774.	4.8	37
57	Stress in Self-Consistent-Field Theory. <i>Macromolecules</i> , 2003, 36, 8184-8188.	4.8	58
58	An efficient algorithm for metric correction forces in simulations of linear polymers with constrained bond lengths. <i>Journal of Chemical Physics</i> , 2002, 116, 1834-1838.	3.0	33
59	Theory of linear viscoelasticity of semiflexible rods in dilute solution. <i>Journal of Rheology</i> , 2002, 46, 1111-1154.	2.6	56
60	A Rouse-like model of liquid crystalline polymer melts: Director dynamics and linear viscoelasticity. <i>Journal of Rheology</i> , 2002, 46, 49-92.	2.6	17
61	Dynamics of Kink Bands in Layered Liquids: A Theory and in Situ SAXS Experiments on a Block Copolymer Melt. <i>Macromolecules</i> , 2001, 34, 7858-7867.	4.8	15
62	Tube diameter in tightly entangled solutions of semiflexible polymers. <i>Physical Review E</i> , 2001, 63, 031502.	2.1	86
63	Viscoelasticity of dilute solutions of semiflexible polymers. <i>Physical Review E</i> , 2001, 64, 020802.	2.1	55
64	Linear viscoelasticity and director dynamics of nematic liquid crystalline polymer melts. <i>Europhysics Letters</i> , 2000, 49, 255-261.	2.0	14
65	Shear-Induced Lamellar Rotation Observed in a Diblock Copolymer by in Situ Small-Angle X-ray Scattering. <i>Macromolecules</i> , 1999, 32, 4668-4676.	4.8	55
66	Viscoelasticity of Concentrated Isotropic Solutions of Semiflexible Polymers. 3. Nonlinear Rheology. <i>Macromolecules</i> , 1999, 32, 5934-5943.	4.8	28
67	Viscoelasticity of Concentrated Isotropic Solutions of Semiflexible Polymers. 1. Model and Stress Tensor. <i>Macromolecules</i> , 1998, 31, 7030-7043.	4.8	210
68	Viscoelasticity of tightly entangled solutions of semiflexible polymers. <i>Physical Review E</i> , 1998, 58, R1237-R1240.	2.1	181
69	Viscoelasticity of Concentrated Isotropic Solutions of Semiflexible Polymers. 2. Linear Response. <i>Macromolecules</i> , 1998, 31, 7044-7067.	4.8	294
70	Entropy and fluctuations of monolayers, membranes, and microemulsions. <i>Current Opinion in Colloid and Interface Science</i> , 1997, 2, 365-372.	7.4	45
71	Wetting description of block copolymer thin films. <i>Physical Review E</i> , 1996, 54, 3793-3810.	2.1	37
72	Statistical mechanics of microemulsions: Droplet phases and macroscopic interfaces. <i>Journal of Chemical Physics</i> , 1996, 105, 11147-11174.	3.0	21

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73	Statistical mechanics of closed fluid membranes. <i>Physical Review E</i> , 1995, 52, 5918-5945.	2.1	58
74	Scaling Properties of Stretching Ridges in a Crumpled Elastic Sheet. <i>Science</i> , 1995, 270, 1482-1485.	12.6	284
75	Fluctuations and Phase Behavior of Fluid Membrane Vesicles. <i>Europhysics Letters</i> , 1994, 26, 565-570.	2.0	47
76	Semiflexible Polymers near Interfaces. <i>Physical Review Letters</i> , 1994, 73, 3235-3238.	7.8	105
77	Topological instabilities and phase behavior of fluid membranes. <i>Physical Review E</i> , 1994, 50, R2423-R2426.	2.1	102
78	Absence of the nematic phase in symmetric diblock copolymers. <i>Physical Review E</i> , 1993, 47, 1119-1125.	2.1	14
79	Droplet Elasticity in Weakly Compressed Emulsions. <i>Europhysics Letters</i> , 1993, 22, 549-555.	2.0	79
80	2D crystalline order and defects in a stack of membranes. <i>Journal De Physique II</i> , 1993, 3, 531-546.	0.9	7
81	Curvature disorder in tethered membranes: A new flat phase at $T=0$. <i>Physical Review A</i> , 1992, 46, 1751-1768.	2.5	32
82	Stability criteria for emulsions. <i>Physical Review Letters</i> , 1992, 69, 2439-2442.	7.8	156
83	Disorder in polymerized fluid membranes. <i>Physical Review A</i> , 1992, 46, 6745-6747.	2.5	12
84	Instabilities of the Fermi-liquid and staggered flux phases in the large- N_t - J model. <i>Physical Review B</i> , 1991, 43, 10436-10444.	3.2	20
85	Incommensurate flux phases on a square lattice. <i>Physical Review B</i> , 1990, 42, 7994-8007.	3.2	11
86	Chiral liquid states in a spin-free representation for the diluted Mott insulator. <i>Physical Review B</i> , 1990, 42, 150-166.	3.2	7
87	Elastic screening of surface vibrations: Surface phonons on $\text{As:Si}(111)(1\bar{1}\bar{1})$. <i>Physical Review B</i> , 1989, 40, 3465-3468.	3.2	16