

R M L Evans

List of Publications by Year in descending order

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54
papers

1,509
citations

331670

21
h-index

315739

38
g-index

54
all docs

54
docs citations

54
times ranked

1228
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct conversion of rheological compliance measurements into storage and loss moduli. <i>Physical Review E</i> , 2009, 80, 012501.	2.1	147
2	Delayed sedimentation of transient gels in colloid-polymer mixtures: dark-field observation, rheology and dynamic light scattering studies. <i>Faraday Discussions</i> , 1999, 112, 143-154.	3.2	121
3	Microrheology with optical tweezers: data analysis. <i>New Journal of Physics</i> , 2012, 14, 115032.	2.9	109
4	Rules for Transition Rates in Nonequilibrium Steady States. <i>Physical Review Letters</i> , 2004, 92, 150601.	7.8	83
5	Measuring storage and loss moduli using optical tweezers: Broadband microrheology. <i>Physical Review E</i> , 2010, 81, 026308.	2.1	75
6	Universal Law of Fractionation for Slightly Polydisperse Systems. <i>Physical Review Letters</i> , 1998, 81, 1326-1329.	7.8	72
7	Optical tweezers: wideband microrheology. <i>Journal of Optics (United Kingdom)</i> , 2011, 13, 044022.	2.2	65
8	Colloid-Polymer Mixtures at Triple Coexistence: Kinetic Maps from Free-Energy Landscapes. <i>Physical Review Letters</i> , 1999, 83, 1239-1242.	7.8	59
9	Role of metastable states in phase ordering dynamics. <i>Europhysics Letters</i> , 1997, 38, 595-600.	2.0	57
10	Detailed balance has a counterpart in non-equilibrium steady states. <i>Journal of Physics A</i> , 2005, 38, 293-313.	1.6	51
11	Orientation fluctuation-induced spinodal decomposition in polymer-liquid-crystal mixtures. <i>Physical Review E</i> , 2000, 61, 2977-2986.	2.1	45
12	Phase transition kinetics in colloid-polymer mixtures at triple coexistence: Kinetic maps from free-energy landscapes. <i>Physical Review E</i> , 2001, 64, 031402.	2.1	43
13	Dynamics of Semiflexible Polymer Solutions in the Highly Entangled Regime. <i>Physical Review Letters</i> , 2008, 101, 198301.	7.8	42
14	Real and effective thermal equilibrium in artificial square spin ices. <i>Physical Review B</i> , 2013, 87, .	3.2	40
15	Perturbative polydispersity: Phase equilibria of near-monodisperse systems. <i>Journal of Chemical Physics</i> , 2001, 114, 1915-1931.	3.0	38
16	The Internal Dynamic Modes of Charged Self-Assembled Peptide Fibrils. <i>Langmuir</i> , 2005, 21, 3733-3737.	3.5	35
17	Invariant Quantities in Shear Flow. <i>Physical Review Letters</i> , 2008, 101, 240601.	7.8	29
18	Analysis of the linear viscoelasticity of polyelectrolytes by magnetic microrheometry-Pulsed creep experiments and the one particle response. <i>Journal of Rheology</i> , 2010, 54, 117-131.	2.6	25

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19	Fractionation of polydisperse systems: Multiphase coexistence. <i>Physical Review E</i> , 1999, 59, 3192-3195.	2.1	24
20	Diffusive growth of polydisperse hard-sphere crystals. <i>Physical Review E</i> , 2001, 64, 011404.	2.1	24
21	The Self-Assembly, Elasticity, and Dynamics of Cardiac Thin Filaments. <i>Biophysical Journal</i> , 2008, 94, 2170-2178.	0.5	24
22	Classification of ordering kinetics in three-phase systems. <i>Physical Review E</i> , 2001, 64, 031403.	2.1	22
23	Emergence of a stress transmission length-scale in transient gels. <i>Journal of Physics Condensed Matter</i> , 2002, 14, 2507-2529.	1.8	22
24	Diffusive evolution of stable and metastable phases. II. Theory of nonequilibrium behavior in colloid-polymer mixtures. <i>Physical Review E</i> , 1997, 56, 5748-5758.	2.1	20
25	Diffusion and rheology in a model of glassy materials. <i>European Physical Journal B</i> , 1999, 10, 705-718.	1.5	20
26	Properties of a nonequilibrium heat bath. <i>Physical Review E</i> , 2008, 77, 031117.	2.1	20
27	Kinetics from free-energy landscapes - how to turn phase diagrams into kinetic maps. <i>Journal of Physics Condensed Matter</i> , 2000, 12, A269-A274.	1.8	14
28	Non-uniformities in polymer/liquid crystal mixtures. <i>European Physical Journal E</i> , 2002, 9, 79-87.	1.6	14
29	Pattern Formation in Draining Thin Film Suspensions. <i>Langmuir</i> , 2007, 23, 3732-3736.	3.5	14
30	Diffusive evolution of stable and metastable phases. I. Local dynamics of interfaces. <i>Physical Review E</i> , 1997, 56, 5738-5747.	2.1	13
31	De-mixing of polydisperse fluids: experimental test of a universal relation. <i>Colloid and Polymer Science</i> , 2004, 282, 766-769.	2.1	13
32	Statistical physics of shear flow: a non-equilibrium problem. <i>Contemporary Physics</i> , 2010, 51, 413-427.	1.8	12
33	Phase Diagrams for Deformable Toroidal and Spherical Surfaces with Intrinsic Orientational Order. <i>Journal De Physique II</i> , 1995, 5, 507-530.	0.9	12
34	Theoretical study of fluid membranes of spherical topology with internal degrees of freedom. <i>Physical Review E</i> , 1996, 53, 935-949.	2.1	10
35	Correlation length by measuring empty space in simulated aggregates. <i>Europhysics Letters</i> , 2002, 60, 404-410.	2.0	10
36	Nonequilibrium statistical mechanics of shear flow: invariant quantities and current relations. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2010, 2010, P03030.	2.3	10

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37	Absence of dissipation in trajectory ensembles biased by currents. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2016, 2016, 093305.	2.3	10
38	Driven steady states: rules for transition rates. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2004, 340, 364-372.	2.6	8
39	Validation of the Jarzynski relation for a system with strong thermal coupling: An isothermal ideal gas model. <i>Physical Review E</i> , 2006, 74, 061117.	2.1	8
40	The effects of polydispersity and metastability on crystal growth kinetics. <i>Soft Matter</i> , 2013, 9, 3600.	2.7	8
41	Statistical mechanics far from equilibrium: Prediction and test for a sheared system. <i>Physical Review E</i> , 2010, 81, 051109.	2.1	7
42	Spinodal fractionation in a polydisperse square-well fluid. <i>Physical Review E</i> , 2012, 86, 011405.	2.1	7
43	Measuring local volume fraction, long-wavelength correlations, and fractionation in a phase-separating polydisperse fluid. <i>Journal of Chemical Physics</i> , 2014, 141, 164901.	3.0	6
44	Non-uniformities in polymer/liquid crystal mixtures. <i>European Physical Journal E</i> , 2002, 9, 89-95.	1.6	4
45	Phase equilibria of polydisperse colloids. , 1999, , 172-176.		4
46	Numerical comparison of a constrained path ensemble and a driven quasisteady state. <i>Physical Review E</i> , 2014, 89, 012132.	2.1	3
47	ClassicalXYModel with Conserved Angular Momentum is an Archetypal Non-Newtonian Fluid. <i>Physical Review Letters</i> , 2015, 114, 138301.	7.8	3
48	Redundancy-selection trade-off in phenotype-structured populations. <i>Journal of Theoretical Biology</i> , 2021, 531, 110884.	1.7	3
49	Pay-off scarcity causes evolution of risk-aversion and extreme altruism. <i>Scientific Reports</i> , 2018, 8, 16074.	3.3	2
50	An Addendum to "Detailed Balance has a Counterpart in Nonequilibrium Steady States" <i>Transport Theory and Statistical Physics</i> , 2011, 40, 304-309.	0.4	1
51	Effects of orientational order on modulated cylindrical interfaces. <i>Physical Review E</i> , 2022, 105, .	2.1	1
52	Orientation fluctuation-induced spinodal decompositions in polymer/liquid crystal mixtures. <i>AIP Conference Proceedings</i> , 2000, , .	0.4	0
53	Spinodal Decompositions Driven by Orientation Fluctuations. <i>Molecular Crystals and Liquid Crystals</i> , 2001, 367, 455-461.	0.3	0
54	Ghost-patterning and non-patterning in a draining film model. <i>European Physical Journal E</i> , 2020, 43, 32.	1.6	0