

Fred C Mackintosh

List of Publications by Year in descending order

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195
papers

22,240
citations

8755

75
h-index

8866

145
g-index

199
all docs

199
docs citations

199
times ranked

14103
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonlinear elasticity in biological gels. <i>Nature</i> , 2005, 435, 191-194.	27.8	1,394
2	Elastic Behavior of Cross-Linked and Bundled Actin Networks. <i>Science</i> , 2004, 304, 1301-1305.	12.6	1,090
3	Elasticity of Semiflexible Biopolymer Networks. <i>Physical Review Letters</i> , 1995, 75, 4425-4428.	7.8	935
4	Nonequilibrium Mechanics of Active Cytoskeletal Networks. <i>Science</i> , 2007, 315, 370-373.	12.6	787
5	Tuning bilayer twist using chiral counterions. <i>Nature</i> , 1999, 399, 566-569.	27.8	603
6	Microtubules can bear enhanced compressive loads in living cells because of lateral reinforcement. <i>Journal of Cell Biology</i> , 2006, 173, 733-741.	5.2	585
7	Modeling semiflexible polymer networks. <i>Reviews of Modern Physics</i> , 2014, 86, 995-1036.	45.6	576
8	Microscopic Viscoelasticity: Shear Moduli of Soft Materials Determined from Thermal Fluctuations. <i>Physical Review Letters</i> , 1997, 79, 3286-3289.	7.8	476
9	Probing the Stochastic, Motor-Driven Properties of the Cytoplasm Using Force Spectrum Microscopy. <i>Cell</i> , 2014, 158, 822-832.	28.9	444
10	Scanning Probe-Based Frequency-Dependent Microrheology of Polymer Gels and Biological Cells. <i>Physical Review Letters</i> , 2000, 85, 880-883.	7.8	443
11	Cell volume change through water efflux impacts cell stiffness and stem cell fate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E8618-E8627.	7.1	362
12	An active biopolymer network controlled by molecular motors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 15192-15197.	7.1	353
13	Negative normal stress in semiflexible biopolymer gels. <i>Nature Materials</i> , 2007, 6, 48-51.	27.5	332
14	Determining Microscopic Viscoelasticity in Flexible and Semiflexible Polymer Networks from Thermal Fluctuations. <i>Macromolecules</i> , 1997, 30, 7781-7792.	4.8	328
15	Deformation of Cross-Linked Semiflexible Polymer Networks. <i>Physical Review Letters</i> , 2003, 91, 108102.	7.8	322
16	Dynamic shear modulus of a semiflexible polymer network. <i>Physical Review E</i> , 1998, 58, R1241-R1244.	2.1	321
17	Bacteriophage capsids: Tough nanoshells with complex elastic properties. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 7600-7605.	7.1	317
18	Microrheology. <i>Current Opinion in Colloid and Interface Science</i> , 1999, 4, 300-307.	7.4	301

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19	Polarization memory of multiply scattered light. <i>Physical Review B</i> , 1989, 40, 9342-9345.	3.2	296
20	Distinct regimes of elastic response and deformation modes of cross-linked cytoskeletal and semiflexible polymer networks. <i>Physical Review E</i> , 2003, 68, 061907.	2.1	295
21	Stress controls the mechanics of collagen networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 9573-9578.	7.1	284
22	Mixed Microtubules Steer Dynein-Driven Cargo Transport into Dendrites. <i>Current Biology</i> , 2010, 20, 290-299.	3.9	281
23	Criticality and isostaticity in fibre networks. <i>Nature Physics</i> , 2011, 7, 983-988.	16.7	266
24	Broken detailed balance at mesoscopic scales in active biological systems. <i>Science</i> , 2016, 352, 604-607.	12.6	259
25	Deformation and Collapse of Microtubules on the Nanometer Scale. <i>Physical Review Letters</i> , 2003, 91, 098101.	7.8	220
26	Active multistage coarsening of actin networks driven by myosin motors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 9408-9413.	7.1	214
27	Intracellular transport by active diffusion. <i>Trends in Cell Biology</i> , 2009, 19, 423-427.	7.9	209
28	Structural Hierarchy Governs Fibrin Gel Mechanics. <i>Biophysical Journal</i> , 2010, 98, 2281-2289.	0.5	209
29	Diffusing-wave spectroscopy and multiple scattering of light in correlated random media. <i>Physical Review B</i> , 1989, 40, 2383-2406.	3.2	197
30	Cytoplasmic diffusion: molecular motors mix it up. <i>Journal of Cell Biology</i> , 2008, 183, 583-587.	5.2	191
31	Molecular motors robustly drive active gels to a critically connected state. <i>Nature Physics</i> , 2013, 9, 591-597.	16.7	188
32	High-resolution mapping of intracellular fluctuations using carbon nanotubes. <i>Science</i> , 2014, 344, 1031-1035.	12.6	188
33	Stability and phase behavior of mixed surfactant vesicles. <i>Physical Review A</i> , 1991, 43, 1071-1078.	2.5	186
34	Ultra-responsive soft matter from strain-stiffening hydrogels. <i>Nature Communications</i> , 2014, 5, 5808.	12.8	186
35	Driven granular media in one dimension: Correlations and equation of state. <i>Physical Review E</i> , 1996, 54, R9-R12.	2.1	181
36	Coherent backscattering of light in the presence of time-reversal-noninvariant and parity-nonconserving media. <i>Physical Review B</i> , 1988, 37, 1884-1897.	3.2	175

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37	Nonequilibrium Mechanics and Dynamics of Motor-Activated Gels. <i>Physical Review Letters</i> , 2008, 100, 018104.	7.8	171
38	Nonlinear Elasticity of Stiff Filament Networks: Strain Stiffening, Negative Normal Stress, and Filament Alignment in Fibrin Gels. <i>Journal of Physical Chemistry B</i> , 2009, 113, 3799-3805.	2.6	166
39	Origins of Elasticity in Intermediate Filament Networks. <i>Physical Review Letters</i> , 2010, 104, 058101.	7.8	165
40	Theory of cylindrical tubules and helical ribbons of chiral lipid membranes. <i>Physical Review E</i> , 1996, 53, 3804-3818.	2.1	163
41	Elastic Response, Buckling, and Instability of Microtubules under Radial Indentation. <i>Biophysical Journal</i> , 2006, 91, 1521-1531.	0.5	163
42	Active and Passive Microrheology in Equilibrium and Nonequilibrium Systems. <i>Macromolecules</i> , 2008, 41, 7194-7202.	4.8	161
43	Scaling of F-Actin Network Rheology to Probe Single Filament Elasticity and Dynamics. <i>Physical Review Letters</i> , 2004, 93, 188102.	7.8	155
44	The Role of Network Architecture in Collagen Mechanics. <i>Biophysical Journal</i> , 2018, 114, 2665-2678.	0.5	153
45	Nonequilibrium Microtubule Fluctuations in a Model Cytoskeleton. <i>Physical Review Letters</i> , 2008, 100, 118104.	7.8	152
46	Strain-controlled criticality governs the nonlinear mechanics of fibre networks. <i>Nature Physics</i> , 2016, 12, 584-587.	16.7	147
47	Bending Dynamics of Fluctuating Biopolymers Probed by Automated High-Resolution Filament Tracking. <i>Biophysical Journal</i> , 2007, 93, 346-359.	0.5	142
48	Cylindrical Penning traps with orthogonalized anharmonicity compensation. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1984, 57, 1-17.	1.8	140
49	Self-Assembly of Linear Aggregates: the Effect of Electrostatics on Growth. <i>Europhysics Letters</i> , 1990, 12, 697-702.	2.0	140
50	Force fluctuations and polymerization dynamics of intracellular microtubules. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 16128-16133.	7.1	134
51	Round versus flat: Bone cell morphology, elasticity, and mechanosensing. <i>Journal of Biomechanics</i> , 2008, 41, 1590-1598.	2.1	131
52	Theory of "Ripple" Phases of Lipid Bilayers. <i>Physical Review Letters</i> , 1993, 71, 1565-1568.	7.8	129
53	High-Frequency Stress Relaxation in Semiflexible Polymer Solutions and Networks. <i>Physical Review Letters</i> , 2006, 96, 138307.	7.8	129
54	The role of the cytoskeleton in sensing changes in gravity by nonspecialized cells. <i>FASEB Journal</i> , 2014, 28, 536-547.	0.5	128

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55	Cross-Link-Governed Dynamics of Biopolymer Networks. <i>Physical Review Letters</i> , 2010, 105, 238101.	7.8	124
56	Brownian Motion of Stiff Filaments in a Crowded Environment. <i>Science</i> , 2010, 330, 1804-1807.	12.6	123
57	Uncoupling shear and uniaxial elastic moduli of semiflexible biopolymer networks: compression-softening and stretch-stiffening. <i>Scientific Reports</i> , 2016, 6, 19270.	3.3	122
58	Microrheology of Biopolymer-Membrane Complexes. <i>Physical Review Letters</i> , 2000, 85, 457-460.	7.8	121
59	Dynamics of viscoelastic membranes. <i>Physical Review E</i> , 2002, 66, 061606.	2.1	105
60	Orientational order, topology, and vesicle shapes. <i>Physical Review Letters</i> , 1991, 67, 1169-1172.	7.8	103
61	Weak localization of photons: Termination of coherent random walks by absorption and confined geometry. <i>Physical Review Letters</i> , 1987, 59, 1420-1423.	7.8	101
62	Viscoelastic Properties of Microtubule Networks. <i>Macromolecules</i> , 2007, 40, 7714-7720.	4.8	99
63	Divalent Cations Crosslink Vimentin Intermediate Filament Tail Domains to Regulate Network Mechanics. <i>Journal of Molecular Biology</i> , 2010, 399, 637-644.	4.2	98
64	Visualizing the Strain Field in Semiflexible Polymer Networks: Strain Fluctuations and Nonlinear Rheology of F-Actin Gels. <i>Physical Review Letters</i> , 2007, 98, 198304.	7.8	96
65	Filament-Length-Controlled Elasticity in 3D Fiber Networks. <i>Physical Review Letters</i> , 2012, 108, 078102.	7.8	96
66	Actin Filament Length Tunes Elasticity of Flexibly Cross-Linked Actin Networks. <i>Biophysical Journal</i> , 2010, 99, 1091-1100.	0.5	93
67	Measurement of nonlinear rheology of cross-linked biopolymer gels. <i>Soft Matter</i> , 2010, 6, 4120.	2.7	91
68	Growth of charged micelles. <i>Journal De Physique</i> , 1990, 51, 503-510.	1.8	90
69	Nonlinear Elasticity: From Single Chain to Networks and Gels. <i>Macromolecules</i> , 2013, 46, 3679-3692.	4.8	88
70	Effective Medium Theory of Semiflexible Filamentous Networks. <i>Physical Review Letters</i> , 2007, 99, 038101.	7.8	85
71	Nonlinear Elasticity of Composite Networks of Stiff Biopolymers with Flexible Linkers. <i>Physical Review Letters</i> , 2008, 101, 118103.	7.8	85
72	Cross-Linked Networks of Stiff Filaments Exhibit Negative Normal Stress. <i>Physical Review Letters</i> , 2009, 102, 088102.	7.8	85

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73	Microtubule Elasticity: Connecting All-Atom Simulations with Continuum Mechanics. <i>Physical Review Letters</i> , 2010, 104, 018101.	7.8	82
74	Velocity Distributions in Dissipative Granular Gases. <i>Physical Review Letters</i> , 2004, 93, 038001.	7.8	81
75	Viscoelastic properties of actin-coated membranes. <i>Physical Review E</i> , 2001, 63, 021904.	2.1	80
76	Active cellular materials. <i>Current Opinion in Cell Biology</i> , 2010, 22, 29-35.	5.4	79
77	Competition between Bending and Internal Pressure Governs the Mechanics of Fluid Nanovesicles. <i>ACS Nano</i> , 2017, 11, 2628-2636.	14.6	78
78	Nonlinear elasticity of stiff biopolymers connected by flexible linkers. <i>Physical Review E</i> , 2009, 79, 041928.	2.1	75
79	Molecular motors stiffen non-affine semiflexible polymer networks. <i>Soft Matter</i> , 2011, 7, 3186.	2.7	75
80	Multi-scale strain-stiffening of semiflexible bundle networks. <i>Soft Matter</i> , 2016, 12, 2145-2156.	2.7	72
81	Collapse of a semiflexible polymer in poor solvent. <i>Physical Review E</i> , 2004, 69, 021916.	2.1	71
82	High-frequency microrheology of wormlike micelles. <i>Physical Review E</i> , 2005, 72, 011504.	2.1	71
83	The Mechanics and Fluctuation Spectrum of Active Gels. <i>Journal of Physical Chemistry B</i> , 2009, 113, 3820-3830.	2.6	71
84	Nonequilibrium fluctuations of a remodeling <i>in vitro</i> cytoskeleton. <i>Physical Review E</i> , 2012, 86, 020901.	2.1	71
85	Bio Imaging of Intracellular NO Production in Single Bone Cells After Mechanical Stimulation. <i>Journal of Bone and Mineral Research</i> , 2006, 21, 1722-1728.	2.8	69
86	Nonlinear effective-medium theory of disordered spring networks. <i>Physical Review E</i> , 2012, 85, 021801.	2.1	69
87	Dynamical intermediates in the collapse of semiflexible polymers in poor solvents. <i>Europhysics Letters</i> , 2000, 51, 279-285.	2.0	68
88	Metastable intermediates in the condensation of semiflexible polymers. <i>Physical Review E</i> , 2002, 65, 061904.	2.1	68
89	Fluctuation-Dissipation Theorem in an Aging Colloidal Glass. <i>Physical Review Letters</i> , 2007, 98, 108302.	7.8	67
90	Correlated fluctuations of microparticles in viscoelastic solutions: Quantitative measurement of material properties by microrheology in the presence of optical traps. <i>Physical Review E</i> , 2006, 73, 061501.	2.1	66

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91	Broken Detailed Balance of Filament Dynamics in Active Networks. <i>Physical Review Letters</i> , 2016, 116, 248301.	7.8	65
92	Budding and domain shape transformations in mixed lipid films and bilayer membranes. <i>Physical Review E</i> , 2005, 72, 011903.	2.1	64
93	Buckling of Actin-Coated Membranes under Application of a Local Force. <i>Physical Review Letters</i> , 2001, 87, 088103.	7.8	61
94	Elasticity of fibrous networks under uniaxial prestress. <i>Soft Matter</i> , 2016, 12, 5050-5060.	2.7	61
95	Phase transitions and modulated phases in lipid bilayers. <i>Physical Review E</i> , 1995, 51, 504-513.	2.1	59
96	Mobility of extended bodies in viscous films and membranes. <i>Physical Review E</i> , 2004, 69, 021503.	2.1	58
97	Control of non-linear elasticity in F-actin networks with microtubules. <i>Soft Matter</i> , 2011, 7, 902-906.	2.7	56
98	Actin gels. <i>Current Opinion in Solid State and Materials Science</i> , 1997, 2, 350-357.	11.5	54
99	Dynamics of Rigid and Flexible Extended Bodies in Viscous Films and Membranes. <i>Physical Review Letters</i> , 2004, 93, 038102.	7.8	54
100	Porosity Governs Normal Stresses in Polymer Gels. <i>Physical Review Letters</i> , 2016, 117, 217802.	7.8	54
101	Theory of Fission for Two-Component Lipid Vesicles. <i>Physical Review Letters</i> , 1997, 79, 1579-1582.	7.8	53
102	Nonuniversality of elastic exponents in random bond-bending networks. <i>Physical Review E</i> , 2003, 68, 025101.	2.1	53
103	Visualizing the Formation and Collapse of DNA Toroids. <i>Biophysical Journal</i> , 2010, 98, 1902-1910.	0.5	53
104	Elasticity in Ionically Cross-Linked Neurofilament Networks. <i>Biophysical Journal</i> , 2010, 98, 2147-2153.	0.5	52
105	Stress-Enhanced Gelation: A Dynamic Nonlinearity of Elasticity. <i>Physical Review Letters</i> , 2013, 110, 018103.	7.8	52
106	Elastic regimes of subisostatic athermal fiber networks. <i>Physical Review E</i> , 2016, 93, 012407.	2.1	51
107	Force percolation of contractile active gels. <i>Soft Matter</i> , 2017, 13, 5624-5644.	2.7	51
108	Mechanical response of semiflexible networks to localized perturbations. <i>Physical Review E</i> , 2005, 72, 061914.	2.1	50

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109	Short-Time Inertial Response of Viscoelastic Fluids: Observation of Vortex Propagation. <i>Physical Review Letters</i> , 2005, 95, 208302.	7.8	46
110	Self-organized stress patterns drive state transitions in actin cortices. <i>Science Advances</i> , 2018, 4, eaar2847.	10.3	46
111	Anomalous Discontinuity at the Percolation Critical Point of Active Gels. <i>Physical Review Letters</i> , 2015, 114, 098104.	7.8	45
112	Actively Stressed Marginal Networks. <i>Physical Review Letters</i> , 2012, 109, 238101.	7.8	44
113	Origin of Slow Stress Relaxation in the Cytoskeleton. <i>Physical Review Letters</i> , 2019, 122, 218102.	7.8	44
114	Nonlinear Viscoelasticity of Actin Transiently Cross-linked with Mutant $\hat{\mu}$ -Actinin-4. <i>Journal of Molecular Biology</i> , 2011, 411, 1062-1071.	4.2	42
115	Phase separation and curvature of bilayer membranes. <i>Physical Review E</i> , 1993, 47, 1180-1183.	2.1	41
116	Strain-driven criticality underlies nonlinear mechanics of fibrous networks. <i>Physical Review E</i> , 2016, 94, 042407.	2.1	40
117	Shear of Diblock Copolymer Lamellae: Width Changes and Undulational Instabilities. <i>Macromolecules</i> , 1994, 27, 7677-7680.	4.8	39
118	Velocity distributions in dilute granular systems. <i>Physical Review E</i> , 2005, 72, 051301.	2.1	38
119	Compression stiffening of fibrous networks with stiff inclusions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 21037-21044.	7.1	38
120	$\langle i \rangle n \langle i \rangle$ -Atic Order and Continuous Shape Changes of Deformable Surfaces of Genus Zero. <i>Europhysics Letters</i> , 1992, 20, 279-284.	2.0	37
121	Effective-medium approach for stiff polymer networks with flexible cross-links. <i>Physical Review E</i> , 2009, 79, 061914.	2.1	35
122	Fluctuation-Stabilized Marginal Networks and Anomalous Entropic Elasticity. <i>Physical Review Letters</i> , 2013, 111, 095503.	7.8	35
123	Shape Transformations of Domains in Mixed-Fluid Films and Bilayer Membranes. <i>Europhysics Letters</i> , 1994, 28, 495-500.	2.0	34
124	Buckling and force propagation along intracellular microtubules. <i>Europhysics Letters</i> , 2008, 84, 18003.	2.0	34
125	Cofilin drives rapid turnover and fluidization of entangled F-actin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 12629-12637.	7.1	33
126	Nonlinear Mechanics of Athermal Branched Biopolymer Networks. <i>Journal of Physical Chemistry B</i> , 2016, 120, 5831-5841.	2.6	32

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127	Inertial Effects in the Response of Viscous and Viscoelastic Fluids. <i>Physical Review Letters</i> , 2005, 95, 208303.	7.8	31
128	Scaling Theory for Mechanical Critical Behavior in Fiber Networks. <i>Physical Review Letters</i> , 2019, 122, 188003.	7.8	30
129	High-bandwidth viscoelastic properties of aging colloidal glasses and gels. <i>Physical Review E</i> , 2008, 78, 061402.	2.1	29
130	Short-time inertial response of viscoelastic fluids measured with Brownian motion and with active probes. <i>Physical Review E</i> , 2008, 77, 061508.	2.1	28
131	Lipid organization and the morphology of solid-like domains in phase-separating binary lipid membranes. <i>Journal of Physics Condensed Matter</i> , 2006, 18, L415-L420.	1.8	26
132	Active soft matter. <i>Soft Matter</i> , 2011, 7, 3050.	2.7	25
133	Scale-Dependent Nonaffine Elasticity of Semiflexible Polymer Networks. <i>Physical Review Letters</i> , 2014, 112, .	7.8	23
134	Programming the mechanics of cohesive fiber networks by compression. <i>Soft Matter</i> , 2017, 13, 8886-8893.	2.7	23
135	Effective temperatures from the fluctuation-dissipation measurements in soft glassy materials. <i>Europhysics Letters</i> , 2008, 84, 20006.	2.0	22
136	Theory of modulated phases in lipid bilayers and liquid crystal films. <i>Physical Review E</i> , 1996, 53, 4933-4943.	2.1	21
137	Stress-stabilized subisostatic fiber networks in a ropelike limit. <i>Physical Review E</i> , 2019, 99, 042412.	2.1	21
138	Unique Role of Vimentin Networks in Compression Stiffening of Cells and Protection of Nuclei from Compressive Stress. <i>Nano Letters</i> , 2022, 22, 4725-4732.	9.1	21
139	The deformation field in semiflexible networks. <i>Journal of Physics Condensed Matter</i> , 2004, 16, S2079-S2088.	1.8	19
140	Poisson's Ratio in Composite Elastic Media with Rigid Rods. <i>Physical Review Letters</i> , 2010, 105, 138102.	7.8	19
141	Elastic response of filamentous networks with compliant crosslinks. <i>Physical Review E</i> , 2013, 88, 052705.	2.1	19
142	A symmetrical method to obtain shear moduli from microrheology. <i>Soft Matter</i> , 2018, 14, 3716-3723.	2.7	19
143	Mechanics of soft composites of rods in elastic gels. <i>Physical Review E</i> , 2011, 84, 061906.	2.1	18
144	Driven diffusive systems with mutually interactive Langmuir kinetics. <i>Physical Review E</i> , 2015, 91, 032143.	2.1	18

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145	Spontaneous vesicle formation by mixed surfactants. , 1991, , 3-7.		17
146	Mixed fluid bilayers: Effects of confinement. Physical Review E, 1994, 50, 2891-2897.	2.1	17
147	Theoretical Models of Viscoelasticity of Actin Solutions and the Actin Cortex. Biological Bulletin, 1998, 194, 351-353.	1.8	17
148	Active diffusion: The erratic dance of chromosomal loci. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 7138-7139.	7.1	16
149	Cell-induced confinement effects in soft tissue mechanics. Journal of Applied Physics, 2021, 129, .	2.5	15
150	Effects of Vimentin Intermediate Filaments on the Structure and Dynamics of <i>In Vitro</i> Multicomponent Interpenetrating Cytoskeletal Networks. Physical Review Letters, 2021, 127, 108101.	7.8	15
151	Normal stresses in semiflexible polymer hydrogels. Physical Review E, 2018, 97, 032418.	2.1	14
152	Normal stress anisotropy and marginal stability in athermal elastic networks. Soft Matter, 2019, 15, 1666-1675.	2.7	14
153	Anomalous mechanics of Zn ²⁺ -modified fibrin networks. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	14
154	Finite size effects in critical fiber networks. Soft Matter, 2020, 16, 6784-6793.	2.7	13
155	Equilibrium size distribution of charged 'living' polymers. Journal of Physics Condensed Matter, 1990, 2, SA359-SA364.	1.8	12
156	Nonlinear Poisson Effect Governed by a Mechanical Critical Transition. Physical Review Letters, 2020, 124, 038002.	7.8	12
157	Motor-Free Contractility in Active Gels. Physical Review Letters, 2020, 125, 208101.	7.8	11
158	Internal structures in membranes: Ripples, hats, saddles, and egg cartons. Current Opinion in Colloid and Interface Science, 1997, 2, 382-387.	7.4	10
159	Unraveling DNA tori under tension. Physical Review E, 2009, 80, 031917.	2.1	10
160	Structural Phase Transitions in Liquid-Crystal Films Induced by an Applied Electric Field. Europhysics Letters, 1995, 30, 215-220.	2.0	9
161	Instability and Front Propagation in Laser-Tweezed Lipid Bilayer Tubules. Journal De Physique II, 1997, 7, 139-156.	0.9	9
162	On-site residence time in a driven diffusive system: Violation and recovery of a mean-field description. Physical Review E, 2016, 93, 012119.	2.1	9

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163	Critical behaviour in the nonlinear elastic response of hydrogels. <i>Soft Matter</i> , 2016, 12, 6995-7004.	2.7	9
164	Polymer Mushrooms Compressed Under Curved Surfaces. <i>Journal De Physique II</i> , 1995, 5, 1407-1417.	0.9	9
165	Reply to "Comment on "Polarization memory of multiply scattered light". <i>Physical Review B</i> , 1992, 45, 8165-8165.	3.2	7
166	Instability of myelin tubes under dehydration: Deswelling of layered cylindrical structures. <i>Physical Review E</i> , 2001, 64, 050903.	2.1	6
167	Inherently unstable networks collapse to a critical point. <i>Physical Review E</i> , 2015, 92, 012710.	2.1	6
168	Nonlinear stress relaxation of transiently crosslinked biopolymer networks. <i>Physical Review E</i> , 2021, 104, 034418.	2.1	6
169	Nonthermal fluctuations of the mitotic spindle. <i>Soft Matter</i> , 2015, 11, 4396-4401.	2.7	5
170	Sheinman, Sharma, and MacKintosh Reply:. <i>Physical Review Letters</i> , 2016, 116, 189802.	7.8	5
171	Shear-induced phase transition and critical exponents in three-dimensional fiber networks. <i>Physical Review E</i> , 2021, 104, L022402.	2.1	5
172	Stability and anomalous entropic elasticity of subisostatic random-bond networks. <i>Physical Review E</i> , 2015, 92, 042145.	2.1	4
173	Enhanced ordering in length-polydisperse carbon nanotube solutions at high concentrations as revealed by small angle X-ray scattering. <i>Soft Matter</i> , 2021, 17, 5122-5130.	2.7	4
174	A measurement of the spin-rotation coupling in NaXe molecules. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1985, 112, 435-439.	2.1	3
175	Swelling Kinetics of Layered Structures: Triblock Copolymer Mesogels. <i>Langmuir</i> , 1995, 11, 2471-2475.	3.5	3
176	Motors keep dynamics steady. <i>Nature Materials</i> , 2011, 10, 414-415.	27.5	3
177	Multiscale Microrheology Using Fluctuating Filaments as Stealth Probes. <i>Physical Review Letters</i> , 2021, 127, 158001.	7.8	3
178	Settling dynamics of Brownian chains in viscous fluids. <i>Physical Review Fluids</i> , 2022, 7, .	2.5	3
179	Local Viscoelasticity of Biopolymer Solutions. <i>Materials Research Society Symposia Proceedings</i> , 1996, 463, 15.	0.1	2
180	Cytoplasmic Transport: Bacteria Turn to Glass Unless Kicked. <i>Current Biology</i> , 2014, 24, R226-R228.	3.9	2

#	ARTICLE	IF	CITATIONS
181	Single-walled carbon nanotube reptation dynamics in submicron sized pores from randomly packed mono-sized colloids. <i>Soft Matter</i> , 2022, 18, 5509-5517.	2.7	2
182	Stability and Phase Behavior of Mixed-Surfactant Vesicles. <i>Materials Research Society Symposia Proceedings</i> , 1991, 248, 11.	0.1	1
183	Viscoelasticity and its Microscopic Characterization in Semiflexible Biopolymer Solutions. <i>Materials Research Society Symposia Proceedings</i> , 1997, 489, 39.	0.1	1
184	Tuning bilayer twist using chiral counterions. <i>Biology of the Cell</i> , 1999, 91, 276-276.	2.0	1
185	Stress relaxation in F-actin solutions by severing. <i>Soft Matter</i> , 2019, 15, 6300-6307.	2.7	1
186	Stability and Phase Behavior of Mixed Surfactant Vesicles. , 1991, , 197-205.		1
187	Id Excited Granular Media: Clustering and Equation of State. <i>Materials Research Society Symposia Proceedings</i> , 1994, 367, 501.	0.1	0
188	Front propagation in laser-tweezed lipid bilayer tubules. <i>Materials Research Society Symposia Proceedings</i> , 1996, 463, 173.	0.1	0
189	Model for Dynamic Shear Modulus of Semiflexible Polymer Solutions. <i>Materials Research Society Symposia Proceedings</i> , 1997, 489, 49.	0.1	0
190	Deformation of crosslinked semiflexible polymer networks. <i>AIP Conference Proceedings</i> , 2004, , .	0.4	0
191	Stiff-Filament Microrheology. <i>Biophysical Journal</i> , 2010, 98, 557a.	0.5	0
192	Force Spectrum Microscopy Reveals Active Diffusive-Like Fluctuations in Living Cells. <i>Biophysical Journal</i> , 2014, 106, 244a.	0.5	0
193	Reply to the "Comment on "A symmetrical method to obtain shear moduli from microrheology" by M. Tassieri, <i>Soft Matter</i> , 2018, 14, DOI: 10.1039/C8SM00806J. <i>Soft Matter</i> , 2018, 14, 8671-8672.	2.7	0
194	Laser trapping and laser interferometry for high-bandwidth micromechanical probing of biomaterials. , 2008, , .		0
195	Coherent Backscattering and Anderson Localization of Light. <i>Springer Proceedings in Physics</i> , 1989, , 117-126.	0.2	0