Fred C Mackintosh

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/3644475/publications.pdf

Version: 2024-02-01

195 22,240 papers citations

75 h-index 145 g-index

199 all docs

199 docs citations 199 times ranked 14103 citing authors

| # | Article | IF | Citations |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 1 | Settling dynamics of Brownian chains in viscous fluids. Physical Review Fluids, 2022, 7, . | 1.0 | 3 |
| 2 | Single-walled carbon nanotube reptation dynamics in submicron sized pores from randomly packed mono-sized colloids. Soft Matter, 2022, 18, 5509-5517. | 1.2 | 2 |
| 3 | Unique Role of Vimentin Networks in Compression Stiffening of Cells and Protection of Nuclei from Compressive Stress. Nano Letters, 2022, 22, 4725-4732. | 4.5 | 21 |
| 4 | Enhanced ordering in length-polydisperse carbon nanotube solutions at high concentrations as revealed by small angle X-ray scattering. Soft Matter, 2021, 17, 5122-5130. | 1.2 | 4 |
| 5 | Anomalous mechanics of Zn $<$ sup $>$ 2+ $<$ /sup $>$ -modified fibrin networks. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118 , . | 3.3 | 14 |
| 6 | Cell-induced confinement effects in soft tissue mechanics. Journal of Applied Physics, 2021, 129, . | 1.1 | 15 |
| 7 | Shear-induced phase transition and critical exponents in three-dimensional fiber networks. Physical Review E, 2021, 104, L022402. | 0.8 | 5 |
| 8 | Effects of Vimentin Intermediate Filaments on the Structure and Dynamics of <i>InÂVitro</i> Multicomponent Interpenetrating Cytoskeletal Networks. Physical Review Letters, 2021, 127, 108101. | 2.9 | 15 |
| 9 | Nonlinear stress relaxation of transiently crosslinked biopolymer networks. Physical Review E, 2021, 104, 034418. | 0.8 | 6 |
| 10 | Multiscale Microrheology Using Fluctuating Filaments as Stealth Probes. Physical Review Letters, 2021, 127, 158001. | 2.9 | 3 |
| 11 | Compression stiffening of fibrous networks with stiff inclusions. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21037-21044. | 3.3 | 38 |
| 12 | Finite size effects in critical fiber networks. Soft Matter, 2020, 16, 6784-6793. | 1.2 | 13 |
| 13 | Nonlinear Poisson Effect Governed by a Mechanical Critical Transition. Physical Review Letters, 2020, 124, 038002. | 2.9 | 12 |
| 14 | Motor-Free Contractility in Active Gels. Physical Review Letters, 2020, 125, 208101. | 2.9 | 11 |
| 15 | Stress relaxation in F-actin solutions by severing. Soft Matter, 2019, 15, 6300-6307. | 1.2 | 1 |
| 16 | Normal stress anisotropy and marginal stability in athermal elastic networks. Soft Matter, 2019, 15, 1666-1675. | 1.2 | 14 |
| 17 | Origin of Slow Stress Relaxation in the Cytoskeleton. Physical Review Letters, 2019, 122, 218102. | 2.9 | 44 |
| 18 | Cofilin drives rapid turnover and fluidization of entangled F-actin. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 12629-12637. | 3.3 | 33 |

| # | Article | IF | CITATIONS |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 19 | Scaling Theory for Mechanical Critical Behavior in Fiber Networks. Physical Review Letters, 2019, 122, 188003. | 2.9 | 30 |
| 20 | Stress-stabilized subisostatic fiber networks in a ropelike limit. Physical Review E, 2019, 99, 042412. | 0.8 | 21 |
| 21 | Normal stresses in semiflexible polymer hydrogels. Physical Review E, 2018, 97, 032418. | 0.8 | 14 |
| 22 | A symmetrical method to obtain shear moduli from microrheology. Soft Matter, 2018, 14, 3716-3723. | 1.2 | 19 |
| 23 | Reply to the â€~Comment on "A symmetrical method to obtain shear moduli from microrheologyâ€â€™ by M. Tassieri, Soft Matter, 2018, 14, DOI: 10.1039/C8SM00806J. Soft Matter, 2018, 14, 8671-8672. | 1.2 | O |
| 24 | The Role of Network Architecture in Collagen Mechanics. Biophysical Journal, 2018, 114, 2665-2678. | 0.2 | 153 |
| 25 | Self-organized stress patterns drive state transitions in actin cortices. Science Advances, 2018, 4, eaar 2847. | 4.7 | 46 |
| 26 | Competition between Bending and Internal Pressure Governs the Mechanics of Fluid Nanovesicles. ACS Nano, 2017, 11, 2628-2636. | 7.3 | 78 |
| 27 | Cell volume change through water efflux impacts cell stiffness and stem cell fate. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E8618-E8627. | 3.3 | 362 |
| 28 | Programming the mechanics of cohesive fiber networks by compression. Soft Matter, 2017, 13, 8886-8893. | 1.2 | 23 |
| 29 | Force percolation of contractile active gels. Soft Matter, 2017, 13, 5624-5644. | 1.2 | 51 |
| 30 | Uncoupling shear and uniaxial elastic moduli of semiflexible biopolymer networks: compression-softening and stretch-stiffening. Scientific Reports, 2016, 6, 19270. | 1.6 | 122 |
| 31 | Broken detailed balance at mesoscopic scales in active biological systems. Science, 2016, 352, 604-607. | 6.0 | 259 |
| 32 | Elasticity of fibrous networks under uniaxial prestress. Soft Matter, 2016, 12, 5050-5060. | 1.2 | 61 |
| 33 | Nonlinear Mechanics of Athermal Branched Biopolymer Networks. Journal of Physical Chemistry B, 2016, 120, 5831-5841. | 1.2 | 32 |
| 34 | Strain-driven criticality underlies nonlinear mechanics of fibrous networks. Physical Review E, 2016, 94, 042407. | 0.8 | 40 |
| 35 | On-site residence time in a driven diffusive system: Violation and recovery of a mean-field description. Physical Review E, 2016, 93, 012119. | 0.8 | 9 |
| 36 | Elastic regimes of subisostatic athermal fiber networks. Physical Review E, 2016, 93, 012407. | 0.8 | 51 |

| # | Article | IF | Citations |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 37 | Sheinman, Sharma, and MacKintosh Reply:. Physical Review Letters, 2016, 116, 189802. | 2.9 | 5 |
| 38 | Broken Detailed Balance of Filament Dynamics in Active Networks. Physical Review Letters, 2016, 116, 248301. | 2.9 | 65 |
| 39 | Critical behaviour in the nonlinear elastic response of hydrogels. Soft Matter, 2016, 12, 6995-7004. | 1.2 | 9 |
| 40 | Porosity Governs Normal Stresses in Polymer Gels. Physical Review Letters, 2016, 117, 217802. | 2.9 | 54 |
| 41 | Strain-controlled criticality governs the nonlinear mechanics of fibre networks. Nature Physics, 2016, 12, 584-587. | 6.5 | 147 |
| 42 | Multi-scale strain-stiffening of semiflexible bundle networks. Soft Matter, 2016, 12, 2145-2156. | 1.2 | 72 |
| 43 | Inherently unstable networks collapse to a critical point. Physical Review E, 2015, 92, 012710. | 0.8 | 6 |
| 44 | Stability and anomalous entropic elasticity of subisostatic random-bond networks. Physical Review E, 2015, 92, 042145. | 0.8 | 4 |
| 45 | Nonthermal fluctuations of the mitotic spindle. Soft Matter, 2015, 11, 4396-4401. | 1.2 | 5 |
| 46 | Anomalous Discontinuity at the Percolation Critical Point of Active Gels. Physical Review Letters, 2015, 114, 098104. | 2.9 | 45 |
| 47 | Driven diffusive systems with mutually interactive Langmuir kinetics. Physical Review E, 2015, 91, 032143. | 0.8 | 18 |
| 48 | Stress controls the mechanics of collagen networks. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9573-9578. | 3.3 | 284 |
| 49 | Ultra-responsive soft matter from strain-stiffening hydrogels. Nature Communications, 2014, 5, 5808. | 5.8 | 186 |
| 50 | Cytoplasmic Transport: Bacteria Turn to Glass Unless Kicked. Current Biology, 2014, 24, R226-R228. | 1.8 | 2 |
| 51 | High-resolution mapping of intracellular fluctuations using carbon nanotubes. Science, 2014, 344, 1031-1035. | 6.0 | 188 |
| 52 | Modeling semiflexible polymer networks. Reviews of Modern Physics, 2014, 86, 995-1036. | 16.4 | 576 |
| 53 | Probing the Stochastic, Motor-Driven Properties of the Cytoplasm Using Force Spectrum Microscopy. Cell, 2014, 158, 822-832. | 13.5 | 444 |
| 54 | Scale-Dependent Nonaffine Elasticity of Semiflexible Polymer Networks. Physical Review Letters, 2014, 112, . | 2.9 | 23 |

| # | Article | IF | Citations |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 55 | The role of the cytoskeleton in sensing changes in gravity by nonspecialized cells. FASEB Journal, 2014, 28, 536-547. | 0.2 | 128 |
| 56 | Force Spectrum Microscopy Reveals Active Diffusive-Like Fluctuations in Living Cells. Biophysical Journal, 2014, 106, 244a. | 0.2 | 0 |
| 57 | Molecular motors robustly drive active gels to a critically connected state. Nature Physics, 2013, 9, 591-597. | 6.5 | 188 |
| 58 | Fluctuation-Stabilized Marginal Networks and Anomalous Entropic Elasticity. Physical Review Letters, 2013, 111, 095503. | 2.9 | 35 |
| 59 | Elastic response of filamentous networks with compliant crosslinks. Physical Review E, 2013, 88, 052705. | 0.8 | 19 |
| 60 | Nonlinear Elasticity: From Single Chain to Networks and Gels. Macromolecules, 2013, 46, 3679-3692. | 2,2 | 88 |
| 61 | Stress-Enhanced Gelation: A Dynamic Nonlinearity of Elasticity. Physical Review Letters, 2013, 110, 018103. | 2.9 | 52 |
| 62 | 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. | 3.3 | 16 |
| 63 | Actively Stressed Marginal Networks. Physical Review Letters, 2012, 109, 238101. | 2.9 | 44 |
| 64 | Nonequilibrium fluctuations of a remodeling <i>in vitro </i> cytoskeleton. Physical Review E, 2012, 86, 020901. | 0.8 | 71 |
| 65 | Nonlinear effective-medium theory of disordered spring networks. Physical Review E, 2012, 85, 021801. | 0.8 | 69 |
| 66 | Filament-Length-Controlled Elasticity in 3D Fiber Networks. Physical Review Letters, 2012, 108, 078102. | 2.9 | 96 |
| 67 | Control of non-linear elasticity in F-actin networks with microtubules. Soft Matter, 2011, 7, 902-906. | 1.2 | 56 |
| 68 | Molecular motors stiffen non-affine semiflexible polymer networks. Soft Matter, 2011, 7, 3186. | 1.2 | 75 |
| 69 | Criticality and isostaticity in fibre networks. Nature Physics, 2011, 7, 983-988. | 6.5 | 266 |
| 70 | Active soft matter. Soft Matter, 2011, 7, 3050. | 1.2 | 25 |
| 71 | Nonlinear Viscoelasticity of Actin Transiently Cross-linked with Mutant \hat{l}_{\pm} -Actinin-4. Journal of Molecular Biology, 2011, 411, 1062-1071. | 2.0 | 42 |
| 72 | Motors keep dynamics steady. Nature Materials, 2011, 10, 414-415. | 13.3 | 3 |

| # | Article | IF | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 73 | Mechanics of soft composites of rods in elastic gels. Physical Review E, 2011, 84, 061906. | 0.8 | 18 |
| 74 | Active multistage coarsening of actin networks driven by myosin motors. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9408-9413. | 3.3 | 214 |
| 75 | Mixed Microtubules Steer Dynein-Driven Cargo Transport into Dendrites. Current Biology, 2010, 20, 290-299. | 1.8 | 281 |
| 76 | Active cellular materials. Current Opinion in Cell Biology, 2010, 22, 29-35. | 2.6 | 79 |
| 77 | Poisson's Ratio in Composite Elastic Media with Rigid Rods. Physical Review Letters, 2010, 105, 138102. | 2.9 | 19 |
| 78 | Brownian Motion of Stiff Filaments in a Crowded Environment. Science, 2010, 330, 1804-1807. | 6.0 | 123 |
| 79 | Origins of Elasticity in Intermediate Filament Networks. Physical Review Letters, 2010, 104, 058101. | 2.9 | 165 |
| 80 | Microtubule Elasticity: Connecting All-Atom Simulations with Continuum Mechanics. Physical Review Letters, 2010, 104, 018101. | 2.9 | 82 |
| 81 | Stiff-Filament Microrheology. Biophysical Journal, 2010, 98, 557a. | 0.2 | 0 |
| 82 | Visualizing the Formation and Collapse of DNA Toroids. Biophysical Journal, 2010, 98, 1902-1910. | 0.2 | 53 |
| 83 | Structural Hierarchy Governs Fibrin Gel Mechanics. Biophysical Journal, 2010, 98, 2281-2289. | 0.2 | 209 |
| 84 | Elasticity in Ionically Cross-Linked Neurofilament Networks. Biophysical Journal, 2010, 98, 2147-2153. | 0.2 | 52 |
| 85 | Actin Filament Length Tunes Elasticity of Flexibly Cross-Linked Actin Networks. Biophysical Journal, 2010, 99, 1091-1100. | 0.2 | 93 |
| 86 | Cross-Link-Governed Dynamics of Biopolymer Networks. Physical Review Letters, 2010, 105, 238101. | 2.9 | 124 |
| 87 | Divalent Cations Crosslink Vimentin Intermediate Filament Tail Domains to Regulate Network Mechanics. Journal of Molecular Biology, 2010, 399, 637-644. | 2.0 | 98 |
| 88 | Measurement of nonlinear rheology of cross-linked biopolymer gels. Soft Matter, 2010, 6, 4120. | 1.2 | 91 |
| 89 | Effective-medium approach for stiff polymer networks with flexible cross-links. Physical Review E, 2009, 79, 061914. | 0.8 | 35 |
| 90 | Nonlinear elasticity of stiff biopolymers connected by flexible linkers. Physical Review E, 2009, 79, 041928. | 0.8 | 75 |

| # | Article | IF | CITATIONS |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 91 | Unraveling DNA tori under tension. Physical Review E, 2009, 80, 031917. | 0.8 | 10 |
| 92 | Cross-Linked Networks of Stiff Filaments Exhibit Negative Normal Stress. Physical Review Letters, 2009, 102, 088102. | 2.9 | 85 |
| 93 | An active biopolymer network controlled by molecular motors. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 15192-15197. | 3.3 | 353 |
| 94 | Intracellular transport by active diffusion. Trends in Cell Biology, 2009, 19, 423-427. | 3.6 | 209 |
| 95 | The Mechanics and Fluctuation Spectrum of Active Gels. Journal of Physical Chemistry B, 2009, 113, 3820-3830. | 1.2 | 71 |
| 96 | Nonlinear Elasticity of Stiff Filament Networks: Strain Stiffening, Negative Normal Stress, and Filament Alignment in Fibrin Gels. Journal of Physical Chemistry B, 2009, 113, 3799-3805. | 1.2 | 166 |
| 97 | Round versus flat: Bone cell morphology, elasticity, and mechanosensing. Journal of Biomechanics, 2008, 41, 1590-1598. | 0.9 | 131 |
| 98 | Active and Passive Microrheology in Equilibrium and Nonequilibrium Systems. Macromolecules, 2008, 41, 7194-7202. | 2.2 | 161 |
| 99 | Cytoplasmic diffusion: molecular motors mix it up. Journal of Cell Biology, 2008, 183, 583-587. | 2.3 | 191 |
| 100 | Buckling and force propagation along intracellular microtubules. Europhysics Letters, 2008, 84, 18003. | 0.7 | 34 |
| 101 | Nonequilibrium Mechanics and Dynamics of Motor-Activated Gels. Physical Review Letters, 2008, 100, 018104. | 2.9 | 171 |
| 102 | Nonequilibrium Microtubule Fluctuations in a Model Cytoskeleton. Physical Review Letters, 2008, 100, 118104. | 2.9 | 152 |
| 103 | High-bandwidth viscoelastic properties of aging colloidal glasses and gels. Physical Review E, 2008, 78, 061402. | 0.8 | 29 |
| 104 | Nonlinear Elasticity of Composite Networks of Stiff Biopolymers with Flexible Linkers. Physical Review Letters, 2008, 101, 118103. | 2.9 | 85 |
| 105 | Short-time inertial response of viscoelastic fluids measured with Brownian motion and with active probes. Physical Review E, 2008, 77, 061508. | 0.8 | 28 |
| 106 | Effective temperatures from the fluctuation-dissipation measurements in soft glassy materials. Europhysics Letters, 2008, 84, 20006. | 0.7 | 22 |
| 107 | Laser trapping and laser interferometry for high-bandwidth micromechanical probing of biomaterials. , 2008, , . | | 0 |
| 108 | Visualizing the Strain Field in Semiflexible Polymer Networks: Strain Fluctuations and Nonlinear Rheology of F-Actin Gels. Physical Review Letters, 2007, 98, 198304. | 2.9 | 96 |

| # | Article | IF | Citations |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 109 | Effective Medium Theory of Semiflexible Filamentous Networks. Physical Review Letters, 2007, 99, 038101. | 2.9 | 85 |
| 110 | Fluctuation-Dissipation Theorem in an Aging Colloidal Glass. Physical Review Letters, 2007, 98, 108302. | 2.9 | 67 |
| 111 | Force fluctuations and polymerization dynamics of intracellular microtubules. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 16128-16133. | 3.3 | 134 |
| 112 | Nonequilibrium Mechanics of Active Cytoskeletal Networks. Science, 2007, 315, 370-373. | 6.0 | 787 |
| 113 | Viscoelastic Properties of Microtubule Networks. Macromolecules, 2007, 40, 7714-7720. | 2.2 | 99 |
| 114 | Bending Dynamics of Fluctuating Biopolymers Probed by Automated High-Resolution Filament Tracking. Biophysical Journal, 2007, 93, 346-359. | 0.2 | 142 |
| 115 | Negative normal stress in semiflexible biopolymer gels. Nature Materials, 2007, 6, 48-51. | 13.3 | 332 |
| 116 | Microtubules can bear enhanced compressive loads in living cells because of lateral reinforcement. Journal of Cell Biology, 2006, 173, 733-741. | 2.3 | 585 |
| 117 | Correlated fluctuations of microparticles in viscoelastic solutions: Quantitative measurement of material properties by microrheology in the presence of optical traps. Physical Review E, 2006, 73, 061501. | 0.8 | 66 |
| 118 | Elastic Response, Buckling, and Instability of Microtubules under Radial Indentation. Biophysical Journal, 2006, 91, 1521-1531. | 0.2 | 163 |
| 119 | Lipid organization and the morphology of solid-like domains in phase-separating binary lipid membranes. Journal of Physics Condensed Matter, 2006, 18, L415-L420. | 0.7 | 26 |
| 120 | Bio Imaging of Intracellular NO Production in Single Bone Cells After Mechanical Stimulation. Journal of Bone and Mineral Research, 2006, 21, 1722-1728. | 3.1 | 69 |
| 121 | High-Frequency Stress Relaxation in Semiflexible Polymer Solutions and Networks. Physical Review Letters, 2006, 96, 138307. | 2.9 | 129 |
| 122 | Nonlinear elasticity in biological gels. Nature, 2005, 435, 191-194. | 13.7 | 1,394 |
| 123 | Inertial Effects in the Response of Viscous and Viscoelastic Fluids. Physical Review Letters, 2005, 95, 208303. | 2.9 | 31 |
| 124 | High-frequency microrheology of wormlike micelles. Physical Review E, 2005, 72, 011504. | 0.8 | 71 |
| 125 | Velocity distributions in dilute granular systems. Physical Review E, 2005, 72, 051301. | 0.8 | 38 |
| 126 | Short-Time Inertial Response of Viscoelastic Fluids: Observation of Vortex Propagation. Physical Review Letters, 2005, 95, 208302. | 2.9 | 46 |

| # | Article | IF | CITATIONS |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 127 | Budding and domain shape transformations in mixed lipid films and bilayer membranes. Physical Review E, 2005, 72, 011903. | 0.8 | 64 |
| 128 | Mechanical response of semiflexible networks to localized perturbations. Physical Review E, 2005, 72, 061914. | 0.8 | 50 |
| 129 | The deformation field in semiflexible networks. Journal of Physics Condensed Matter, 2004, 16, S2079-S2088. | 0.7 | 19 |
| 130 | Deformation of crosslinked semiflexible polymer networks. AIP Conference Proceedings, 2004, , . | 0.3 | 0 |
| 131 | Collapse of a semiflexible polymer in poor solvent. Physical Review E, 2004, 69, 021916. | 0.8 | 71 |
| 132 | Velocity Distributions in Dissipative Granular Gases. Physical Review Letters, 2004, 93, 038001. | 2.9 | 81 |
| 133 | Mobility of extended bodies in viscous films and membranes. Physical Review E, 2004, 69, 021503. | 0.8 | 58 |
| 134 | Scaling of F-Actin Network Rheology to Probe Single Filament Elasticity and Dynamics. Physical Review Letters, 2004, 93, 188102. | 2.9 | 155 |
| 135 | Dynamics of Rigid and Flexible Extended Bodies in Viscous Films and Membranes. Physical Review Letters, 2004, 93, 038102. | 2.9 | 54 |
| 136 | Bacteriophage capsids: Tough nanoshells with complex elastic properties. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 7600-7605. | 3.3 | 317 |
| 137 | Elastic Behavior of Cross-Linked and Bundled Actin Networks. Science, 2004, 304, 1301-1305. | 6.0 | 1,090 |
| 138 | Distinct regimes of elastic response and deformation modes of cross-linked cytoskeletal and semiflexible polymer networks. Physical Review E, 2003, 68, 061907. | 0.8 | 295 |
| 139 | Deformation and Collapse of Microtubules on the Nanometer Scale. Physical Review Letters, 2003, 91, 098101. | 2.9 | 220 |
| 140 | Deformation of Cross-Linked Semiflexible Polymer Networks. Physical Review Letters, 2003, 91, 108102. | 2.9 | 322 |
| 141 | Nonuniversality of elastic exponents in random bond-bending networks. Physical Review E, 2003, 68, 025101. | 0.8 | 53 |
| 142 | Metastable intermediates in the condensation of semiflexible polymers. Physical Review E, 2002, 65, 061904. | 0.8 | 68 |
| 143 | Dynamics of viscoelastic membranes. Physical Review E, 2002, 66, 061606. | 0.8 | 105 |
| 144 | Viscoelastic properties of actin-coated membranes. Physical Review E, 2001, 63, 021904. | 0.8 | 80 |

| # | Article | IF | CITATIONS |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 145 | Buckling of Actin-Coated Membranes under Application of a Local Force. Physical Review Letters, 2001, 87, 088103. | 2.9 | 61 |
| 146 | Instability of myelin tubes under dehydration: Deswelling of layered cylindrical structures. Physical Review E, 2001, 64, 050903. | 0.8 | 6 |
| 147 | Dynamical intermediates in the collapse of semiflexible polymers in poor solvents. Europhysics Letters, 2000, 51, 279-285. | 0.7 | 68 |
| 148 | Microrheology of Biopolymer-Membrane Complexes. Physical Review Letters, 2000, 85, 457-460. | 2.9 | 121 |
| 149 | Scanning Probe-Based Frequency-Dependent Microrheology of Polymer Gels and Biological Cells. Physical Review Letters, 2000, 85, 880-883. | 2.9 | 443 |
| 150 | Microrheology. Current Opinion in Colloid and Interface Science, 1999, 4, 300-307. | 3.4 | 301 |
| 151 | Tuning bilayer twist using chiral counterions. Nature, 1999, 399, 566-569. | 13.7 | 603 |
| 152 | Tuning bilayer twist using chiral counterious. Biology of the Cell, 1999, 91, 276-276. | 0.7 | 1 |
| 153 | Dynamic shear modulus of a semiflexible polymer network. Physical Review E, 1998, 58, R1241-R1244. | 0.8 | 321 |
| 154 | Theoretical Models of Viscoelasticity of Actin Solutions and the Actin Cortex. Biological Bulletin, 1998, 194, 351-353. | 0.7 | 17 |
| 155 | Theory of Fission for Two-Component Lipid Vesicles. Physical Review Letters, 1997, 79, 1579-1582. | 2.9 | 53 |
| 156 | Microscopic Viscoelasticity: Shear Moduli of Soft Materials Determined from Thermal Fluctuations. Physical Review Letters, 1997, 79, 3286-3289. | 2.9 | 476 |
| 157 | Viscoelasticity and its Microscopic Characterization in Semiflexible Biopolymer Solutions. Materials Research Society Symposia Proceedings, 1997, 489, 39. | 0.1 | 1 |
| 158 | Model for Dynamic Shear Modulus of Semiflexible Polymer Solutions. Materials Research Society Symposia Proceedings, 1997, 489, 49. | 0.1 | 0 |
| 159 | Determining Microscopic Viscoelasticity in Flexible and Semiflexible Polymer Networks from Thermal Fluctuations. Macromolecules, 1997, 30, 7781-7792. | 2.2 | 328 |
| 160 | Actin gels. Current Opinion in Solid State and Materials Science, 1997, 2, 350-357. | 5.6 | 54 |
| 161 | Instability and Front Propagation in Laser-Tweezed Lipid Bilayer Tubules. Journal De Physique II, 1997, 7, 139-156. | 0.9 | 9 |
| 162 | Internal structures in membranes: Ripples, hats, saddles, and egg cartons. Current Opinion in Colloid and Interface Science, 1997, 2, 382-387. | 3.4 | 10 |

| # | Article | IF | CITATIONS |
|-----|------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------|
| 163 | Driven granular media in one dimension: Correlations and equation of state. Physical Review E, 1996, 54, R9-R12. | 0.8 | 181 |
| 164 | Theory of cylindrical tubules and helical ribbons of chiral lipid membranes. Physical Review E, 1996, 53, 3804-3818. | 0.8 | 163 |
| 165 | Local Viscoelasticity of Biopolymer Solutions. Materials Research Society Symposia Proceedings, 1996, 463, 15. | 0.1 | 2 |
| 166 | Front propagation in laser-tweezed lipid bilayer tubules. Materials Research Society Symposia Proceedings, 1996, 463, 173. | 0.1 | 0 |
| 167 | Theory of modulated phases in lipid bilayers and liquid crystal films. Physical Review E, 1996, 53, 4933-4943. | 0.8 | 21 |
| 168 | Phase transitions and modulated phases in lipid bilayers. Physical Review E, 1995, 51, 504-513. | 0.8 | 59 |
| 169 | Structural Phase Transitions in Liquid-Crystal Films Induced by an Applied Electric Field. Europhysics Letters, 1995, 30, 215-220. | 0.7 | 9 |
| 170 | Swelling Kinetics of Layered Structures: Triblock Copolymer Mesogels. Langmuir, 1995, 11, 2471-2475. | 1.6 | 3 |
| 171 | Elasticity of Semiflexible Biopolymer Networks. Physical Review Letters, 1995, 75, 4425-4428. | 2.9 | 935 |
| 172 | Polymer Mushrooms Compressed Under Curved Surfaces. Journal De Physique II, 1995, 5, 1407-1417. | 0.9 | 9 |
| 173 | Shape Transformations of Domains in Mixed-Fluid Films and Bilayer Membranes. Europhysics Letters, 1994, 28, 495-500. | 0.7 | 34 |
| 174 | Mixed fluid bilayers: Effects of confinement. Physical Review E, 1994, 50, 2891-2897. | 0.8 | 17 |
| 175 | Shear of Diblock Copolymer Lamellae: Width Changes and Undulational Instabilities. Macromolecules, 1994, 27, 7677-7680. | 2.2 | 39 |
| 176 | Id Excited Granular Media: Clustering and Equation of State. Materials Research Society Symposia Proceedings, 1994, 367, 501. | 0.1 | 0 |
| 177 | Theory of "Ripple―Phases of Lipid Bilayers. Physical Review Letters, 1993, 71, 1565-1568. | 2.9 | 129 |
| 178 | Phase separation and curvature of bilayer membranes. Physical Review E, 1993, 47, 1180-1183. | 0.8 | 41 |
| 179 | <i>n</i> -Atic Order and Continuous Shape Changes of Deformable Surfaces of Genus Zero. Europhysics Letters, 1992, 20, 279-284. | 0.7 | 37 |
| 180 | Reply to â€~â€~Comment on â€~Polarization memory of multiply scattered light' ''. Physical Review B, 8165-8165. | 1992, 45, 1.1 | 7 |

| # | Article | IF | Citations |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 181 | Orientational order, topology, and vesicle shapes. Physical Review Letters, 1991, 67, 1169-1172. | 2.9 | 103 |
| 182 | Stability and Phase Behavior of Mixed-Surfactant Vesicles. Materials Research Society Symposia Proceedings, 1991, 248, 11. | 0.1 | 1 |
| 183 | Spontaneous vesicle formation by mixed surfactants. , 1991, , 3-7. | | 17 |
| 184 | Stability and phase behavior of mixed surfactant vesicles. Physical Review A, 1991, 43, 1071-1078. | 1.0 | 186 |
| 185 | Stability and Phase Behavior of Mixed Surfactant Vesicles. , 1991, , 197-205. | | 1 |
| 186 | Growth of charged micelles. Journal De Physique, 1990, 51, 503-510. | 1.8 | 90 |
| 187 | Equilibrium size distribution of charged 'living' polymers. Journal of Physics Condensed Matter, 1990, 2, SA359-SA364. | 0.7 | 12 |
| 188 | Self-Assembly of Linear Aggregates: the Effect of Electrostatics on Growth. Europhysics Letters, 1990, 12, 697-702. | 0.7 | 140 |
| 189 | Polarization memory of multiply scattered light. Physical Review B, 1989, 40, 9342-9345. | 1.1 | 296 |
| 190 | Diffusing-wave spectroscopy and multiple scattering of light in correlated random media. Physical Review B, 1989, 40, 2383-2406. | 1.1 | 197 |
| 191 | Coherent Backscattering and Anderson Localization of Light. Springer Proceedings in Physics, 1989, , 117-126. | 0.1 | 0 |
| 192 | Coherent backscattering of light in the presence of time-reversal-noninvariant and parity-nonconserving media. Physical Review B, 1988, 37, 1884-1897. | 1.1 | 175 |
| 193 | Weak localization of photons: Termination of coherent random walks by absorption and confined geometry. Physical Review Letters, 1987, 59, 1420-1423. | 2.9 | 101 |
| 194 | A measurement of the spin-rotation coupling in NaXe molecules. Physics Letters, Section A: General, Atomic and Solid State Physics, 1985, 112, 435-439. | 0.9 | 3 |
| 195 | Cylindrical Penning traps with orthogonalized anharmonicity compensation. International Journal of Mass Spectrometry and Ion Processes, 1984, 57, 1-17. | 1.9 | 140 |