

Anna C Balazs

List of Publications by Year in descending order

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376
papers

18,881
citations

20036

63
h-index

18944

123
g-index

392
all docs

392
docs citations

392
times ranked

15379
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Nanoparticle Polymer Composites: Where Two Small Worlds Meet. <i>Science</i> , 2006, 314, 1107-1110. | 6.0 | 2,332 |
| 2 | Self-directed self-assembly of nanoparticle/copolymer mixtures. <i>Nature</i> , 2005, 434, 55-59. | 13.7 | 912 |
| 3 | Predicting the Mesophases of Copolymer-Nanoparticle Composites. <i>Science</i> , 2001, 292, 2469-2472. | 6.0 | 701 |
| 4 | Synthetic homeostatic materials with chemo-mechano-chemical self-regulation. <i>Nature</i> , 2012, 487, 214-218. | 13.7 | 418 |
| 5 | Self-Healing Polymer Films Based on Thiol-Disulfide Exchange Reactions and Self-Healing Kinetics Measured Using Atomic Force Microscopy. <i>Macromolecules</i> , 2012, 45, 142-149. | 2.2 | 407 |
| 6 | Entropy-driven segregation of nanoparticles to cracks in multilayered composite polymer structures. <i>Nature Materials</i> , 2006, 5, 229-233. | 13.3 | 331 |
| 7 | Modeling the Interactions between Polymers and Clay Surfaces through Self-Consistent Field Theory. <i>Macromolecules</i> , 1998, 31, 8370-8381. | 2.2 | 329 |
| 8 | Block Copolymer-Directed Assembly of Nanoparticles: Forming Mesoscopically Ordered Hybrid Materials. <i>Macromolecules</i> , 2002, 35, 1060-1071. | 2.2 | 279 |
| 9 | Thermodynamic Behavior of Particle/Diblock Copolymer Mixtures: Simulation and Theory. <i>Macromolecules</i> , 2000, 33, 8085-8096. | 2.2 | 250 |
| 10 | Morphology of Ultrathin Supported Diblock Copolymer Films: Theory and Experiment. <i>Macromolecules</i> , 2000, 33, 5702-5712. | 2.2 | 218 |
| 11 | Pattern Formation and Shape Changes in Self-Oscillating Polymer Gels. <i>Science</i> , 2006, 314, 798-801. | 6.0 | 218 |
| 12 | Theoretical Phase Diagrams of Polymer/Clay Composites: The Role of Grafted Organic Modifiers. <i>Macromolecules</i> , 2000, 33, 1089-1099. | 2.2 | 187 |
| 13 | Using nanoparticles to create self-healing composites. <i>Journal of Chemical Physics</i> , 2004, 121, 5531-5540. | 1.2 | 186 |
| 14 | Generalization of the lattice-fluid model for specific interactions. <i>Macromolecules</i> , 1989, 22, 2325-2331. | 2.2 | 185 |
| 15 | Modeling the Phase Behavior of Polymer-Clay Composites. <i>Macromolecules</i> , 1998, 31, 6676-6680. | 2.2 | 185 |
| 16 | Harnessing Janus Nanoparticles to Create Controllable Pores in Membranes. <i>ACS Nano</i> , 2008, 2, 1117-1122. | 7.3 | 182 |
| 17 | Modeling the Phase Behavior of Polymer/Clay Nanocomposites. <i>Accounts of Chemical Research</i> , 1999, 32, 651-657. | 7.6 | 170 |
| 18 | Equilibrium Orientation of Confined Diblock Copolymer Films. <i>Macromolecules</i> , 1997, 30, 3097-3103. | 2.2 | 163 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Redox Responsive Behavior of Thiol/Disulfide-Functionalized Star Polymers Synthesized via Atom Transfer Radical Polymerization. <i>Macromolecules</i> , 2010, 43, 4133-4139. | 2.2 | 159 |
| 20 | Forming Supramolecular Networks from Nanoscale Rods in Binary, Phase-Separating Mixtures. <i>Science</i> , 2000, 288, 1802-1804. | 6.0 | 152 |
| 21 | Macromolecules at surfaces: Research challenges and opportunities from tribology to biology. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2003, 41, 2755-2793. | 2.4 | 151 |
| 22 | Living Additive Manufacturing: Transformation of Parent Gels into Diversely Functionalized Daughter Gels Made Possible by Visible Light Photoredox Catalysis. <i>ACS Central Science</i> , 2017, 3, 124-134. | 5.3 | 146 |
| 23 | Modeling the Self-Assembly of Copolymer-Nanoparticle Mixtures Confined between Solid Surfaces. <i>Physical Review Letters</i> , 2003, 91, 136103. | 2.9 | 140 |
| 24 | Multi-Scale Model for Binary Mixtures Containing Nanoscopic Particles. <i>Journal of Physical Chemistry B</i> , 2000, 104, 3411-3422. | 1.2 | 139 |
| 25 | Effect of Nanoscopic Particles on the Mesophase Structure of Diblock Copolymers. <i>Macromolecules</i> , 2002, 35, 4855-4858. | 2.2 | 133 |
| 26 | Lateral instabilities in a grafted layer in a poor solvent. <i>Macromolecules</i> , 1993, 26, 1914-1921. | 2.2 | 130 |
| 27 | Designing synthetic vesicles that engulf nanoscopic particles. <i>Journal of Chemical Physics</i> , 2007, 127, 084703. | 1.2 | 130 |
| 28 | Designing Compatibilizers To Reduce Interfacial Tension in Polymer Blends. <i>The Journal of Physical Chemistry</i> , 1996, 100, 1449-1458. | 2.9 | 129 |
| 29 | An aptamer-functionalized chemomechanically modulated biomolecule catch-and-release system. <i>Nature Chemistry</i> , 2015, 7, 447-454. | 6.6 | 128 |
| 30 | Simulation of Hard Particles in a Phase-Separating Binary Mixture. <i>Physical Review Letters</i> , 1999, 82, 4026-4029. | 2.9 | 126 |
| 31 | Calculating Phase Diagrams of Polymer-Platelet Mixtures Using Density Functional Theory: Implications for Polymer/Clay Composites. <i>Macromolecules</i> , 1999, 32, 5681-5688. | 2.2 | 124 |
| 32 | Forming Patterned Films with Tethered Diblock Copolymers. <i>Macromolecules</i> , 1996, 29, 6338-6348. | 2.2 | 123 |
| 33 | Self-Propelled Nanomotors Autonomously Seek and Repair Cracks. <i>Nano Letters</i> , 2015, 15, 7077-7085. | 4.5 | 123 |
| 34 | Folding kinetics of proteins and copolymers. <i>Journal of Chemical Physics</i> , 1992, 96, 768-780. | 1.2 | 118 |
| 35 | Designing Patterned Surfaces by Grafting Y-Shaped Copolymers. <i>Macromolecules</i> , 1996, 29, 2667-2673. | 2.2 | 115 |
| 36 | Stimuli-responsive behavior of composites integrating thermo-responsive gels with photo-responsive fibers. <i>Materials Horizons</i> , 2016, 3, 53-62. | 6.4 | 114 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 37 | Modeling self-healing materials. <i>Materials Today</i> , 2007, 10, 18-23. | 8.3 | 112 |
| 38 | Predicting the Morphologies of Confined Copolymer/Nanoparticle Mixtures. <i>Macromolecules</i> , 2003, 36, 7730-7739. | 2.2 | 111 |
| 39 | Theoretical and computational modeling of self-oscillating polymer gels. <i>Journal of Chemical Physics</i> , 2007, 126, 124707. | 1.2 | 107 |
| 40 | Kinetically Trapped Co-continuous Polymer Morphologies through Intraphase Gelation of Nanoparticles. <i>Nano Letters</i> , 2011, 11, 1997-2003. | 4.5 | 107 |
| 41 | Using Nanocomposite Coatings To Heal Surface Defects. <i>Macromolecules</i> , 2004, 37, 9160-9168. | 2.2 | 98 |
| 42 | Lattice spring model of filled polymers and nanocomposites. <i>Journal of Chemical Physics</i> , 2002, 117, 7649-7658. | 1.2 | 95 |
| 43 | Modeling the Motion of Microcapsules on Compliant Polymeric Surfaces. <i>Macromolecules</i> , 2005, 38, 10244-10260. | 2.2 | 92 |
| 44 | Multiresponsive polymeric microstructures with encoded predetermined and self-regulated deformability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 12950-12955. | 3.3 | 91 |
| 45 | Self-Assembly of Tethered Diblocks in Selective Solvents. <i>Macromolecules</i> , 1996, 29, 8254-8259. | 2.2 | 90 |
| 46 | Entropically Driven Formation of Hierarchically Ordered Nanocomposites. <i>Physical Review Letters</i> , 2002, 89, 155503. | 2.9 | 90 |
| 47 | Effect of sequence distribution on the miscibility of polymer/copolymer blends. <i>Macromolecules</i> , 1985, 18, 2188-2191. | 2.2 | 88 |
| 48 | Modeling Polymer Gels Exhibiting Self-Oscillations Due to the Belousov-Zhabotinsky Reaction. <i>Macromolecules</i> , 2006, 39, 2024-2026. | 2.2 | 82 |
| 49 | Modeling autonomously oscillating chemo-responsive gels. <i>Progress in Polymer Science</i> , 2010, 35, 155-173. | 11.8 | 82 |
| 50 | Newtonian fluid meets an elastic solid: Coupling lattice Boltzmann and lattice-spring models. <i>Physical Review E</i> , 2005, 71, 056707. | 0.8 | 80 |
| 51 | Harnessing Labile Bonds between Nanogel Particles to Create Self-Healing Materials. <i>ACS Nano</i> , 2009, 3, 885-892. | 7.3 | 80 |
| 52 | Three-dimensional model for chemoresponsive polymer gels undergoing the Belousov-Zhabotinsky reaction. <i>Physical Review E</i> , 2008, 78, 041406. | 0.8 | 78 |
| 53 | Convective flow reversal in self-powered enzyme micropumps. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 2585-2590. | 3.3 | 78 |
| 54 | Compatibilizing A/B blends with AB diblock copolymers: Effect of copolymer molecular weight. <i>Journal of Chemical Physics</i> , 1995, 102, 8149-8157. | 1.2 | 76 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 55 | Predicting the Mechanical and Electrical Properties of Nanocomposites Formed from Polymer Blends and Nanorods. <i>Molecular Simulation</i> , 2004, 30, 249-257. | 0.9 | 75 |
| 56 | Harnessing Interfacially-Active Nanorods to Regenerate Severed Polymer Gels. <i>Nano Letters</i> , 2013, 13, 6269-6274. | 4.5 | 75 |
| 57 | Adsorption of copolymer chains at liquid-liquid interfaces: effect of sequence distribution. <i>Macromolecules</i> , 1992, 25, 1357-1360. | 2.2 | 73 |
| 58 | Simulating the morphology and mechanical properties of filled diblock copolymers. <i>Physical Review E</i> , 2003, 67, 031802. | 0.8 | 71 |
| 59 | Microphase Separation in Comb Copolymers. <i>Macromolecules</i> , 1994, 27, 2496-2502. | 2.2 | 66 |
| 60 | Determining the phase behavior of nanoparticle-filled binary blends. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2006, 44, 2389-2403. | 2.4 | 64 |
| 61 | Mechano-chemical oscillations and waves in reactive gels. <i>Reports on Progress in Physics</i> , 2012, 75, 066601. | 8.1 | 64 |
| 62 | Attraction between Surfaces in a Polymer Melt Containing Telechelic Chains: Guidelines for Controlling the Surface Separation in Intercalated Polymer/Clay Composites. <i>Langmuir</i> , 1999, 15, 3935-3943. | 1.6 | 63 |
| 63 | Patterned Surfaces Segregate Compliant Microcapsules. <i>Langmuir</i> , 2007, 23, 983-987. | 1.6 | 63 |
| 64 | Shape- and size-dependent patterns in self-oscillating polymer gels. <i>Soft Matter</i> , 2011, 7, 3141. | 1.2 | 63 |
| 65 | Chemical Oscillators in Structured Media. <i>Accounts of Chemical Research</i> , 2012, 45, 2160-2168. | 7.6 | 63 |
| 66 | Self-regulated non-reciprocal motions in single-material microstructures. <i>Nature</i> , 2022, 605, 76-83. | 13.7 | 63 |
| 67 | Modeling the Dynamic Behavior of Diblock Copolymer/Particle Composites. <i>Macromolecules</i> , 2000, 33, 6140-6147. | 2.2 | 61 |
| 68 | Modeling the Self-Assembly of Lipids and Nanotubes in Solution: Forming Vesicles and Bicelles with Transmembrane Nanotube Channels. <i>ACS Nano</i> , 2011, 5, 4769-4782. | 7.3 | 61 |
| 69 | Using Light to Guide the Self-Sustained Motion of Active Gels. <i>Langmuir</i> , 2009, 25, 4298-4301. | 1.6 | 60 |
| 70 | Self-Assembly of Amphiphilic Nanoparticle-Coiled Tadpole Macromolecules. <i>Macromolecules</i> , 2004, 37, 3536-3539. | 2.2 | 59 |
| 71 | Designing Synthetic, Pumping Cilia That Switch the Flow Direction in Microchannels. <i>Langmuir</i> , 2008, 24, 12102-12106. | 1.6 | 59 |
| 72 | Effect of Copolymer Architecture on the Efficiency of Compatibilizers. <i>Macromolecules</i> , 1995, 28, 6278-6283. | 2.2 | 58 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 73 | Interactions of nanoscopic particles with phase-separating polymeric mixtures. <i>Current Opinion in Colloid and Interface Science</i> , 1999, 4, 443-448. | 3.4 | 58 |
| 74 | Kinetic model of phase separation in binary mixtures with hard mobile impurities. <i>Physical Review E</i> , 1999, 60, 4352-4359. | 0.8 | 58 |
| 75 | Force-Induced Globule-Coil Transition in Single Polystyrene Chains in Water. <i>Journal of the American Chemical Society</i> , 2007, 129, 10046-10047. | 6.6 | 58 |
| 76 | Harnessing catalytic pumps for directional delivery of microparticles in microchambers. <i>Nature Communications</i> , 2017, 8, 14384. | 5.8 | 58 |
| 77 | Effect of polymer architecture on the miscibility of polymer/clay mixtures. <i>Polymer International</i> , 2000, 49, 469-471. | 1.6 | 57 |
| 78 | Designing Compliant Substrates to Regulate the Motion of Vesicles. <i>Physical Review Letters</i> , 2006, 96, 148103. | 2.9 | 57 |
| 79 | Solutal and thermal buoyancy effects in self-powered phosphatase micropumps. <i>Soft Matter</i> , 2017, 13, 2800-2807. | 1.2 | 57 |
| 80 | Probing and repairing damaged surfaces with nanoparticle-containing microcapsules. <i>Nature Nanotechnology</i> , 2012, 7, 87-90. | 15.6 | 56 |
| 81 | Modeling the Photoinduced Reconfiguration and Directed Motion of Polymer Gels. <i>Advanced Functional Materials</i> , 2013, 23, 4601-4610. | 7.8 | 56 |
| 82 | Transformable Materials: Structurally Tailored and Engineered Macromolecular (STEM) Gels by Controlled Radical Polymerization. <i>Macromolecules</i> , 2018, 51, 3808-3817. | 2.2 | 56 |
| 83 | pH-Controlled Gating in Polymer Brushes. <i>Macromolecules</i> , 1994, 27, 6679-6682. | 2.2 | 55 |
| 84 | Chemo-responsive, self-oscillating gels that undergo biomimetic communication. <i>Chemical Society Reviews</i> , 2013, 42, 7257. | 18.7 | 54 |
| 85 | Modeling the Interactions between Polymer-Coated Surfaces. <i>Journal of Physical Chemistry B</i> , 1997, 101, 10614-10624. | 1.2 | 53 |
| 86 | Computer Simulation of Morphologies and Optical Properties of Filled Diblock Copolymers. <i>Macromolecules</i> , 2003, 36, 9631-9637. | 2.2 | 52 |
| 87 | Healing substrates with mobile, particle-filled microcapsules: designing a "repair and go" system. <i>Journal of the Royal Society Interface</i> , 2007, 4, 349-357. | 1.5 | 52 |
| 88 | Using Nanoparticle-Filled Microcapsules for Site-Specific Healing of Damaged Substrates: Creating a "Repair-and-Go" System. <i>ACS Nano</i> , 2010, 4, 1115-1123. | 7.3 | 52 |
| 89 | UV patternable thin film chemistry for shape and functionally versatile self-oscillating gels. <i>Soft Matter</i> , 2013, 9, 1231-1243. | 1.2 | 52 |
| 90 | Exploiting gradients in cross-link density to control the bending and self-propelled motion of active gels. <i>Journal of Materials Chemistry</i> , 2011, 21, 8360. | 6.7 | 51 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 91 | Controlling the dynamic behavior of heterogeneous self-oscillating gels. <i>Journal of Materials Chemistry</i> , 2012, 22, 13625. | 6.7 | 51 |
| 92 | Scaling theory for end-functionalized polymers confined between two surfaces: Predictions for fabricating polymer/clay nanocomposites. <i>Journal of Chemical Physics</i> , 2000, 112, 4365-4375. | 1.2 | 50 |
| 93 | Designing Oscillating Cilia That Capture or Release Microscopic Particles. <i>Langmuir</i> , 2010, 26, 2963-2968. | 1.6 | 50 |
| 94 | Modeling the response of dual cross-linked nanoparticle networks to mechanical deformation. <i>Soft Matter</i> , 2013, 9, 109-121. | 1.2 | 50 |
| 95 | Equilibrium behavior of confined triblock copolymer films. <i>Macromolecular Theory and Simulations</i> , 1998, 7, 249-255. | 0.6 | 49 |
| 96 | Mechanical Resuscitation of Chemical Oscillations in Belousovâ€Žhabotinsky Gels. <i>Advanced Functional Materials</i> , 2012, 22, 2535-2541. | 7.8 | 49 |
| 97 | Harnessing Fluid-Driven Vesicles To Pick Up and Drop Off Janus Particles. <i>ACS Nano</i> , 2013, 7, 1224-1238. | 7.3 | 49 |
| 98 | Contrasting the compatibilizing activity of comb and linear copolymers. <i>Macromolecules</i> , 1994, 27, 720-724. | 2.2 | 48 |
| 99 | Mechanically induced chemical oscillations and motion in responsive gels. <i>Soft Matter</i> , 2007, 3, 1138. | 1.2 | 48 |
| 100 | Modeling free radical polymerization using dissipative particle dynamics. <i>Polymer</i> , 2015, 72, 217-225. | 1.8 | 48 |
| 101 | Three-dimensional simulations of diblock copolymer/particle composites. <i>Polymer</i> , 2002, 43, 461-466. | 1.8 | 47 |
| 102 | Copolymer/copolymer blends: effect of sequence distribution on miscibility. <i>Macromolecules</i> , 1985, 18, 2784-2786. | 2.2 | 45 |
| 103 | Designing smart systems to selectively entrap and burst microcapsules. <i>Soft Matter</i> , 2007, 3, 1500. | 1.2 | 45 |
| 104 | Interactions between Polymer-Coated Surfaces in Poor Solvents. 1. Surfaces Grafted with A and B Homopolymers. <i>Macromolecules</i> , 1996, 29, 7559-7570. | 2.2 | 43 |
| 105 | Predicting the self-assembled morphology and mechanical properties of mixtures of diblocks and rod-like nanoparticles. <i>Composite Interfaces</i> , 2003, 10, 343-368. | 1.3 | 43 |
| 106 | Modeling the release of nanoparticles from mobile microcapsules. <i>Journal of Chemical Physics</i> , 2006, 125, 224712. | 1.2 | 43 |
| 107 | Designing communicating colonies of biomimetic microcapsules. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 12417-12422. | 3.3 | 43 |
| 108 | Chemically-mediated communication in self-oscillating, biomimetic cilia. <i>Journal of Materials Chemistry</i> , 2012, 22, 241-250. | 6.7 | 43 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 109 | Modeling copolymer adsorption on laterally heterogeneous surfaces. <i>Physical Review Letters</i> , 1991, 66, 620-623. | 2.9 | 42 |
| 110 | Random copolymers as effective compatibilizing agents. <i>Physical Review E</i> , 1995, 52, 5061-5064. | 0.8 | 42 |
| 111 | Flow injection of polymers into nanopores. <i>Soft Matter</i> , 2009, 5, 4575. | 1.2 | 42 |
| 112 | Pattern recognition with materials that compute. <i>Science Advances</i> , 2016, 2, e1601114. | 4.7 | 42 |
| 113 | A two-dimensional self-consistent-field model for grafted chains: determining the properties of grafted homopolymers in poor solvents. <i>Macromolecules</i> , 1993, 26, 4736-4738. | 2.2 | 41 |
| 114 | Using Copolymer Mixtures To Compatibilize Immiscible Homopolymer Blends. <i>Macromolecules</i> , 1996, 29, 7581-7587. | 2.2 | 41 |
| 115 | Self-assembly of mixtures of nanorods in binary, phase-separating blends. <i>Soft Matter</i> , 2011, 7, 595-607. | 1.2 | 41 |
| 116 | Chemical pumps and flexible sheets spontaneously form self-regulating oscillators in solution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, . | 3.3 | 41 |
| 117 | Polymer adsorption on laterally heterogeneous surfaces: a Monte Carlo computer model. <i>Macromolecules</i> , 1991, 24, 714-717. | 2.2 | 40 |
| 118 | Periodic Droplet Formation in Chemically Patterned Microchannels. <i>Physical Review Letters</i> , 2003, 91, 108303. | 2.9 | 40 |
| 119 | Exploiting Photoinduced Reactions in Polymer Blends to Create Hierarchically Ordered, Defect-Free Materials. <i>Langmuir</i> , 2006, 22, 2620-2628. | 1.6 | 40 |
| 120 | Tailoring the structure of polymer networks with iniferter-mediated photo-growth. <i>Polymer Chemistry</i> , 2016, 7, 2955-2964. | 1.9 | 40 |
| 121 | Spinodal decomposition of a binary fluid with fixed impurities. <i>Journal of Chemical Physics</i> , 2001, 115, 3779-3784. | 1.2 | 39 |
| 122 | Healing Surface Defects with Nanoparticle-Filled Polymer Coatings: Effect of Particle Geometry. <i>Macromolecules</i> , 2005, 38, 10138-10147. | 2.2 | 39 |
| 123 | Reductive elimination of HH, HCH ₃ , and CH ₃ CH ₃ from bis(phosphine)platinum(II), -palladium(II), and -nickel(II) complexes: a theoretical study using the SCF-X.alpha.-SW method. <i>Inorganic Chemistry</i> , 1982, 21, 2162-2174. | 1.9 | 38 |
| 124 | Effect of molecular architecture on the adsorption of copolymers. <i>Macromolecules</i> , 1991, 24, 168-176. | 2.2 | 38 |
| 125 | Macrophase and Microphase Separation in Random Comb Copolymers. <i>Macromolecules</i> , 1995, 28, 3450-3462. | 2.2 | 38 |
| 126 | Forming transmembrane channels using end-functionalized nanotubes. <i>Nanoscale</i> , 2011, 3, 240-250. | 2.8 | 38 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|------|-----------|
| 127 | Using patterned substrates to promote mixing in microchannels. <i>Physical Review E</i> , 2002, 65, 031502. | 0.8 | 36 |
| 128 | Modeling the flow of fluid/particle mixtures in microchannels: Encapsulating nanoparticles within monodisperse droplets. <i>Journal of Chemical Physics</i> , 2005, 123, 224706. | 1.2 | 36 |
| 129 | Designing autonomously motile gels that follow complex paths. <i>Soft Matter</i> , 2010, 6, 768-773. | 1.2 | 36 |
| 130 | Polymer adsorption on chemically heterogeneous substrates. <i>Macromolecules</i> , 1991, 24, 4918-4925. | 2.2 | 35 |
| 131 | Predicting the morphology of nanostructured composites. <i>Current Opinion in Solid State and Materials Science</i> , 2003, 7, 27-33. | 5.6 | 35 |
| 132 | Modeling Microcapsules That Communicate through Nanoparticles To Undergo Self-Propelled Motion. <i>ACS Nano</i> , 2008, 2, 471-476. | 7.3 | 35 |
| 133 | Propulsion and Trapping of Microparticles by Active Cilia Arrays. <i>Langmuir</i> , 2012, 28, 3217-3226. | 1.6 | 35 |
| 134 | Ductility, toughness and strain recovery in self-healing dual cross-linked nanoparticle networks studied by computer simulations. <i>Progress in Polymer Science</i> , 2015, 40, 121-137. | 11.8 | 35 |
| 135 | STEM Gels by Controlled Radical Polymerization. <i>Trends in Chemistry</i> , 2020, 2, 341-353. | 4.4 | 35 |
| 136 | Modeling the dynamic fracture of polymer blends processed under shear. <i>Physical Review B</i> , 2004, 69, . | 1.1 | 34 |
| 137 | Behavior of tethered polyelectrolytes in poor solvents. <i>Journal of Chemical Physics</i> , 1998, 108, 1175-1183. | 1.2 | 33 |
| 138 | Binary hard sphere mixtures in block copolymer melts. <i>Physical Review E</i> , 2002, 66, 031801. | 0.8 | 33 |
| 139 | Modeling the interactions between deformable capsules rolling on a compliant surface. <i>Soft Matter</i> , 2006, 2, 499. | 1.2 | 33 |
| 140 | Emergent or Just Complex?. <i>Science</i> , 2009, 325, 1632-1634. | 6.0 | 33 |
| 141 | Computational Design of Active, Self-Reinforcing Gels. <i>Journal of Physical Chemistry B</i> , 2010, 114, 6316-6322. | 1.2 | 33 |
| 142 | Strain recovery and self-healing in dual cross-linked nanoparticle networks. <i>Polymer Chemistry</i> , 2013, 4, 4927. | 1.9 | 33 |
| 143 | Cooperative, Reversible Self-Assembly of Covalently Pre-Linked Proteins into Giant Fibrous Structures. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 8050-8055. | 7.2 | 32 |
| 144 | Fight the flow: the role of shear in artificial rheotaxis for individual and collective motion. <i>Nanoscale</i> , 2019, 11, 10944-10951. | 2.8 | 32 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 145 | A computer simulation for the aggregation of associating polymers. <i>Macromolecules</i> , 1987, 20, 1999-2003. | 2.2 | 31 |
| 146 | Miscibility in ternary mixtures containing a copolymer and two homopolymers. Effect of sequence distribution. <i>Macromolecules</i> , 1989, 22, 4260-4267. | 2.2 | 31 |
| 147 | Phase separation of a binary fluid in the presence of immobile particles: A lattice Boltzmann approach. <i>Journal of Chemical Physics</i> , 2002, 116, 6305-6310. | 1.2 | 31 |
| 148 | Effect of particle size and shape on the order-disorder phase transition in diblock copolymers. <i>Journal of Chemical Physics</i> , 2003, 119, 3529-3534. | 1.2 | 31 |
| 149 | Reconfigurable assemblies of active, autochemotactic gels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 431-436. | 3.3 | 31 |
| 150 | Structurally Tailored and Engineered Macromolecular (STEM) Gels as Soft Elastomers and Hard/Soft Interfaces. <i>Macromolecules</i> , 2018, 51, 9184-9191. | 2.2 | 31 |
| 151 | Pattern Formation in Binary Fluids Confined between Rough, Chemically Heterogeneous Surfaces. <i>Physical Review Letters</i> , 2004, 93, 184501. | 2.9 | 30 |
| 152 | Harnessing Light to Create Defect-Free, Hierarchically Structured Polymeric Materials. <i>Langmuir</i> , 2005, 21, 10912-10915. | 1.6 | 30 |
| 153 | Designing a Simple Ratcheting System to Sort Microcapsules by Mechanical Properties. <i>Langmuir</i> , 2006, 22, 6739-6742. | 1.6 | 30 |
| 154 | Stackable, Covalently Fused Gels: Repair and Composite Formation. <i>Macromolecules</i> , 2015, 48, 1169-1178. | 2.2 | 30 |
| 155 | Self-Organization of Fluids in a Multienzymatic Pump System. <i>Langmuir</i> , 2019, 35, 3724-3732. | 1.6 | 30 |
| 156 | Modeling Self-Assembly and Phase Behavior in Complex Mixtures. <i>Annual Review of Physical Chemistry</i> , 2007, 58, 211-233. | 4.8 | 29 |
| 157 | Compression of two polymer-coated surfaces in poor solvents. <i>Journal of Chemical Physics</i> , 1996, 105, 706-713. | 1.2 | 28 |
| 158 | Modeling the morphology and mechanical properties of sheared ternary mixtures. <i>Journal of Chemical Physics</i> , 2005, 122, 194906. | 1.2 | 28 |
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