

Juan J De Pablo

List of Publications by Year in descending order

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235
papers

20,792
citations

8159

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11288

136
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237
docs citations

237
times ranked

13285
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Autonomous materials systems from active liquid crystals. <i>Nature Reviews Materials</i> , 2021, 6, 437-453. | 23.3 | 53 |
| 2 | Transformation between elastic dipoles, quadrupoles, octupoles, and hexadecapoles driven by surfactant self-assembly in nematic emulsion. <i>Science Advances</i> , 2021, 7, . | 4.7 | 9 |
| 3 | Combining Particle-Based Simulations and Machine Learning to Understand Defect Kinetics in Thin Films of Symmetric Diblock Copolymers. <i>Macromolecules</i> , 2021, 54, 10074-10085. | 2.2 | 11 |
| 4 | Prolate and oblate chiral liquid crystal spheroids. <i>Science Advances</i> , 2020, 6, eaba6728. | 4.7 | 27 |
| 5 | Formation, Stability, and Annihilation of the Stitched Morphology in Block Copolymer Thin Films. <i>Macromolecules</i> , 2020, 53, 10446-10456. | 2.2 | 3 |
| 6 | Cuboidal liquid crystal phases under multiaxial geometrical frustration. <i>Soft Matter</i> , 2020, 16, 870-880. | 1.2 | 8 |
| 7 | Soft crystal martensites: An in situ resonant soft x-ray scattering study of a liquid crystal martensitic transformation. <i>Science Advances</i> , 2020, 6, eaay5986. | 4.7 | 20 |
| 8 | Fluctuations and phase transitions of uniaxial and biaxial liquid crystals using a theoretically informed Monte Carlo and a Landau free energy density. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 175101. | 0.7 | 1 |
| 9 | Free energy of metal-organic framework self-assembly. <i>Journal of Chemical Physics</i> , 2019, 150, 104502. | 1.2 | 18 |
| 10 | Influence of Homopolymer Addition in Templated Assembly of Cylindrical Block Copolymers. <i>ACS Nano</i> , 2019, 13, 4073-4082. | 7.3 | 3 |
| 11 | Structure and proton conduction in sulfonated poly(ether ether ketone) semi-permeable membranes: a multi-scale computational approach. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 9362-9375. | 1.3 | 4 |
| 12 | Thermally reconfigurable Janus droplets with nematic liquid crystalline and isotropic perfluorocarbon oil compartments. <i>Soft Matter</i> , 2019, 15, 2580-2590. | 1.2 | 19 |
| 13 | Reconfigurable Multicompartment Emulsion Drops Formed by Nematic Liquid Crystals and Immiscible Perfluorocarbon Oils. <i>Langmuir</i> , 2019, 35, 16312-16323. | 1.6 | 12 |
| 14 | SSAGES: Software Suite for Advanced General Ensemble Simulations. <i>Journal of Chemical Physics</i> , 2018, 148, 044104. | 1.2 | 83 |
| 15 | <i>In Silico</i> Measurement of Elastic Moduli of Nematic Liquid Crystals. <i>Physical Review Letters</i> , 2018, 120, 107801. | 2.9 | 16 |
| 16 | A Detailed Examination of the Topological Constraints of Lamellae-Forming Block Copolymers. <i>Macromolecules</i> , 2018, 51, 2110-2124. | 2.2 | 19 |
| 17 | Light-activated helical inversion in cholesteric liquid crystal microdroplets. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 4334-4339. | 3.3 | 30 |
| 18 | Optimizing self-consistent field theory block copolymer models with X-ray metrology. <i>Molecular Systems Design and Engineering</i> , 2018, 3, 376-389. | 1.7 | 13 |

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|----|---|-----|-----------|
| 19 | Interplay of structure, elasticity, and dynamics in actin-based nematic materials. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E124-E133. | 3.3 | 73 |
| 20 | Mechanisms of Directed Self-Assembly in Cylindrical Hole Confinements. Macromolecules, 2018, 51, 2418-2427. | 2.2 | 4 |
| 21 | Amphiphile-Induced Phase Transition of Liquid Crystals at Aqueous Interfaces. ACS Applied Materials & Interfaces, 2018, 10, 37618-37624. | 4.0 | 23 |
| 22 | Defect Annihilation Pathways in Directed Assembly of Lamellar Block Copolymer Thin Films. ACS Nano, 2018, 12, 9974-9981. | 7.3 | 38 |
| 23 | Layered nested Markov chain Monte Carlo. Journal of Chemical Physics, 2018, 149, 072326. | 1.2 | 9 |
| 24 | Molecular Structure of Canonical Liquid Crystal Interfaces. Journal of the American Chemical Society, 2017, 139, 3841-3850. | 6.6 | 56 |
| 25 | Segregation of liquid crystal mixtures in topological defects. Nature Communications, 2017, 8, 15064. | 5.8 | 25 |
| 26 | Spherical nematic shells with a prolate ellipsoidal core. Soft Matter, 2017, 13, 7465-7472. | 1.2 | 13 |
| 27 | Derivation of Multiple Covarying Material and Process Parameters Using Physics-Based Modeling of X-ray Data. Macromolecules, 2017, 50, 7783-7793. | 2.2 | 26 |
| 28 | Water Flux Induced Reorientation of Liquid Crystals. ACS Central Science, 2017, 3, 1345-1349. | 5.3 | 9 |
| 29 | Electrostatic confinement and manipulation of DNA molecules for genome analysis. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13400-13405. | 3.3 | 25 |
| 30 | Parallel $O(N)$ Stokes TM solver towards scalable Brownian dynamics of hydrodynamically interacting objects in general geometries. Journal of Chemical Physics, 2017, 146, 244114. | 1.2 | 14 |
| 31 | Educating local radial basis functions using the highest gradient of interest in three dimensional geometries. International Journal for Numerical Methods in Engineering, 2017, 110, 603-617. | 1.5 | 1 |
| 32 | Understanding Atomic-Scale Behavior of Liquid Crystals at Aqueous Interfaces. Journal of Chemical Theory and Computation, 2017, 13, 237-244. | 2.3 | 31 |
| 33 | Design of surface patterns with optimized thermodynamic driving forces for the directed self-assembly of block copolymers in lithographic applications. Molecular Systems Design and Engineering, 2017, 2, 567-580. | 1.7 | 11 |
| 34 | Lattice Boltzmann simulation of asymmetric flow in nematic liquid crystals with finite anchoring. Journal of Chemical Physics, 2016, 144, 084905. | 1.2 | 30 |
| 35 | Directed self-assembly of nematic liquid crystals on chemically patterned surfaces: morphological states and transitions. Soft Matter, 2016, 12, 8595-8605. | 1.2 | 23 |
| 36 | Structural Transitions in Cholesteric Liquid Crystal Droplets. ACS Nano, 2016, 10, 6484-6490. | 7.3 | 66 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 37 | Topological defects in liquid crystals as templates for molecular self-assembly. <i>Nature Materials</i> , 2016, 15, 106-112. | 13.3 | 211 |
| 38 | Sculpting bespoke mountains: Determining free energies with basis expansions. <i>Journal of Chemical Physics</i> , 2015, 143, 044101. | 1.2 | 11 |
| 39 | Stimuli-Responsive Cubosomes Formed from Blue Phase Liquid Crystals. <i>Advanced Materials</i> , 2015, 27, 6892-6898. | 11.1 | 44 |
| 40 | Graphoepitaxial assembly of cylinder forming block copolymers in cylindrical holes. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2015, 53, 430-441. | 2.4 | 7 |
| 41 | Liquid Crystal Enabled Early Stage Detection of Beta Amyloid Formation on Lipid Monolayers. <i>Advanced Functional Materials</i> , 2015, 25, 6050-6060. | 7.8 | 79 |
| 42 | Homeotropic nano-particle assembly on degenerate planar nematic interfaces: films and droplets. <i>Soft Matter</i> , 2015, 11, 5067-5076. | 1.2 | 12 |
| 43 | The effects of geometry and chemistry of nanopatterned substrates on the directed self-assembly of block-copolymer melts. , 2015, , . | | 2 |
| 44 | Interplay of Surface Energy and Bulk Thermodynamic Forces in Ordered Block Copolymer Droplets. <i>Macromolecules</i> , 2015, 48, 4717-4723. | 2.2 | 11 |
| 45 | Molecular pathways for defect annihilation in directed self-assembly. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 14144-14149. | 3.3 | 98 |
| 46 | Theoretically informed Monte Carlo simulation of liquid crystals by sampling of alignment-tensor fields. <i>Journal of Chemical Physics</i> , 2015, 143, 044107. | 1.2 | 22 |
| 47 | Self-consistent description of electrokinetic phenomena in particle-based simulations. <i>Journal of Chemical Physics</i> , 2015, 143, 014108. | 1.2 | 8 |
| 48 | Liquid crystal free energy relaxation by a theoretically informed Monte Carlo method using a finite element quadrature approach. <i>Journal of Chemical Physics</i> , 2015, 143, 243157. | 1.2 | 13 |
| 49 | Defect Removal in the Course of Directed Self-Assembly is Facilitated in the Vicinity of the Order-Disorder Transition. <i>Physical Review Letters</i> , 2014, 113, 168301. | 2.9 | 97 |
| 50 | Surface Adsorption in Nonpolarizable Atomic Models. <i>Journal of Chemical Theory and Computation</i> , 2014, 10, 5616-5624. | 2.3 | 4 |
| 51 | Measuring liquid crystal elastic constants with free energy perturbations. <i>Soft Matter</i> , 2014, 10, 882-893. | 1.2 | 42 |
| 52 | Basis Function Sampling: A New Paradigm for Material Property Computation. <i>Physical Review Letters</i> , 2014, 113, 190602. | 2.9 | 17 |
| 53 | Free energy landscapes of the encapsulation mechanism of DNA nucleobases onto carbon nanotubes. <i>RSC Advances</i> , 2014, 4, 1310-1321. | 1.7 | 15 |
| 54 | Evolutionary Optimization of Directed Self-Assembly of Triblock Copolymers on Chemically Patterned Substrates. <i>ACS Macro Letters</i> , 2014, 3, 747-752. | 2.3 | 64 |

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|----|---|-----|-----------|
| 55 | Control of Directed Self-Assembly in Block Polymers by Polymeric Topcoats. <i>Macromolecules</i> , 2014, 47, 3520-3527. | 2.2 | 36 |
| 56 | Reversible Switching of Liquid Crystalline Order Permits Synthesis of Homogeneous Populations of Dipolar Patchy Microparticles. <i>Advanced Functional Materials</i> , 2014, 24, 6219-6226. | 7.8 | 26 |
| 57 | The Materials Genome Initiative, the interplay of experiment, theory and computation. <i>Current Opinion in Solid State and Materials Science</i> , 2014, 18, 99-117. | 5.6 | 160 |
| 58 | Block Copolymer Assembly on Nanoscale Patterns of Polymer Brushes Formed by Electrohydrodynamic Jet Printing. <i>ACS Nano</i> , 2014, 8, 6606-6613. | 7.3 | 52 |
| 59 | Dynamical Simulations of Coarse Grain Polymeric Systems: Rouse and Entangled Dynamics. <i>Macromolecules</i> , 2013, 46, 6287-6299. | 2.2 | 59 |
| 60 | Computational Approaches for the Dynamics of Structure Formation in Self-Assembling Polymeric Materials. <i>Annual Review of Materials Research</i> , 2013, 43, 1-34. | 4.3 | 75 |
| 61 | Colloid-Liquid Crystal Gels that Respond to Biomolecular Interactions. <i>Small</i> , 2013, 9, 2785-2792. | 5.2 | 18 |
| 62 | Presentation of Large DNA Molecules for Analysis as Nanoconfined Dumbbells. <i>Macromolecules</i> , 2013, 46, 8356-8368. | 2.2 | 39 |
| 63 | An experimentally-informed coarse-grained 3-site-per-nucleotide model of DNA: Structure, thermodynamics, and dynamics of hybridization. <i>Journal of Chemical Physics</i> , 2013, 139, 144903. | 1.2 | 191 |
| 64 | Evolutionary pattern design for copolymer directed self-assembly. <i>Soft Matter</i> , 2013, 9, 11467. | 1.2 | 57 |
| 65 | Nematic-Field-Driven Positioning of Particles in Liquid Crystal Droplets. <i>Physical Review Letters</i> , 2013, 111, 227801. | 2.9 | 50 |
| 66 | Chemical Patterns for Directed Self-Assembly of Lamellae-Forming Block Copolymers with Density Multiplication of Features. <i>Macromolecules</i> , 2013, 46, 1415-1424. | 2.2 | 201 |
| 67 | Scalable simulations for directed self-assembly patterning with the use of GPU parallel computing. , 2012, , . | | 1 |
| 68 | Directed Assembly of Non-equilibrium ABA Triblock Copolymer Morphologies on Nanopatterned Substrates. <i>ACS Nano</i> , 2012, 6, 5440-5448. | 7.3 | 50 |
| 69 | Parallel \hat{I}^2 -Sheet Vibrational Couplings Revealed by 2D IR Spectroscopy of an Isotopically Labeled Macrocyclic: Quantitative Benchmark for the Interpretation of Amyloid and Protein Infrared Spectra. <i>Journal of the American Chemical Society</i> , 2012, 134, 19118-19128. | 6.6 | 91 |
| 70 | Free Energy of Defects in Ordered Assemblies of Block Copolymer Domains. <i>ACS Macro Letters</i> , 2012, 1, 418-422. | 2.3 | 107 |
| 71 | An immersed boundary method for Brownian dynamics simulation of polymers in complex geometries: Application to DNA flowing through a nanoslit with embedded nanopits. <i>Journal of Chemical Physics</i> , 2012, 136, 014901. | 1.2 | 48 |
| 72 | Morphology of Lamellae-Forming Block Copolymer Films between Two Orthogonal Chemically Nanopatterned Striped Surfaces. <i>Physical Review Letters</i> , 2012, 108, 065502. | 2.9 | 34 |

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|----|---|------|-----------|
| 73 | Symmetric Diblock Copolymers Confined by Two Nanopatterned Surfaces. <i>Macromolecules</i> , 2012, 45, 2588-2596. | 2.2 | 25 |
| 74 | Nonequilibrium Simulations of Lamellae Forming Block Copolymers under Steady Shear: A Comparison of Dissipative Particle Dynamics and Brownian Dynamics. <i>Macromolecules</i> , 2012, 45, 8109-8116. | 2.2 | 32 |
| 75 | Nonbulk Complex Structures in Thin Films of Symmetric Block Copolymers on Chemically Nanopatterned Surfaces. <i>Macromolecules</i> , 2012, 45, 3986-3992. | 2.2 | 40 |
| 76 | Effects of 3D microwell culture on growth kinetics and metabolism of human embryonic stem cells. <i>Biotechnology and Applied Biochemistry</i> , 2012, 59, 88-96. | 1.4 | 15 |
| 77 | Density of States-Based Molecular Simulations. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2012, 3, 369-394. | 3.3 | 55 |
| 78 | Modulation of Wnt/ β -catenin signaling in human embryonic stem cells using a 3-D microwell array. <i>Biomaterials</i> , 2012, 33, 2041-2049. | 5.7 | 68 |
| 79 | Pattern Dimensions and Feature Shapes of Ternary Blends of Block Copolymer and Low Molecular Weight Homopolymers Directed To Assemble on Chemically Nanopatterned Surfaces. <i>ACS Nano</i> , 2011, 5, 5673-5682. | 7.3 | 35 |
| 80 | Morphologies of Linear Triblock Copolymers from Monte Carlo Simulations. <i>Macromolecules</i> , 2011, 44, 5490-5497. | 2.2 | 51 |
| 81 | Influence of Nanorod Inclusions on Structure and Primitive Path Network of Polymer Nanocomposites at Equilibrium and Under Deformation. <i>Macromolecules</i> , 2011, 44, 1034-1045. | 2.2 | 91 |
| 82 | Cavitation and Crazeing in Rod-Containing Nanocomposites. <i>Macromolecules</i> , 2011, 44, 5498-5509. | 2.2 | 61 |
| 83 | Coarse-Grained Simulations of Macromolecules: From DNA to Nanocomposites. <i>Annual Review of Physical Chemistry</i> , 2011, 62, 555-574. | 4.8 | 126 |
| 84 | A coarse-grain three-site-per-nucleotide model for DNA with explicit ions. <i>Journal of Chemical Physics</i> , 2011, 135, 165104. | 1.2 | 54 |
| 85 | Endotoxin-Induced Structural Transformations in Liquid Crystalline Droplets. <i>Science</i> , 2011, 332, 1297-1300. | 6.0 | 339 |
| 86 | Effect of trehalose on the interaction of Alzheimer's A β -peptide and anionic lipid monolayers. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2011, 1808, 26-33. | 1.4 | 17 |
| 87 | Flux Tempered Metadynamics. <i>Journal of Statistical Physics</i> , 2011, 145, 932-945. | 0.5 | 32 |
| 88 | Three-dimensional Directed Assembly of Block Copolymers together with Two-dimensional Square and Rectangular Nanolithography. <i>Advanced Materials</i> , 2011, 23, 3692-3697. | 11.1 | 66 |
| 89 | Monte-Carlo simulation of ternary blends of block copolymers and homopolymers. <i>Journal of Chemical Physics</i> , 2011, 135, 114904. | 1.2 | 13 |
| 90 | A molecular view of vapor deposited glasses. <i>Journal of Chemical Physics</i> , 2011, 134, 194903. | 1.2 | 80 |

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|-----|---|-----|-----------|
| 91 | The microwell control of embryoid body size in order to regulate cardiac differentiation of human embryonic stem cells. <i>Biomaterials</i> , 2010, 31, 1885-1893. | 5.7 | 184 |
| 92 | Mechanism and dynamics of block copolymer directed assembly with density multiplication on chemically patterned surfaces. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2010, 28, C6B13-C6B19. | 0.6 | 10 |
| 93 | Shape control and density multiplication of cylinder-forming ternary block copolymer-homopolymer blend thin films on chemical patterns. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2010, 28, C6B24-C6B29. | 0.6 | 7 |
| 94 | Graphoepitaxial assembly of asymmetric ternary blends of block copolymers and homopolymers. <i>Nanotechnology</i> , 2010, 21, 495301. | 1.3 | 14 |
| 95 | Solution Structures of Rat Amylin Peptide: Simulation, Theory, and Experiment. <i>Biophysical Journal</i> , 2010, 98, 443-451. | 0.2 | 51 |
| 96 | Interpolation in the Directed Assembly of Block Copolymers on Nanopatterned Substrates: Simulation and Experiments. <i>Macromolecules</i> , 2010, 43, 3446-3454. | 2.2 | 131 |
| 97 | Remediation of Line Edge Roughness in Chemical Nanopatterns by the Directed Assembly of Overlying Block Copolymer Films. <i>Macromolecules</i> , 2010, 43, 2334-2342. | 2.2 | 81 |
| 98 | Simulations of theoretically informed coarse grain models of polymeric systems. <i>Faraday Discussions</i> , 2010, 144, 111-125. | 1.6 | 53 |
| 99 | Mechanical properties of antiplasticized polymer nanostructures. <i>Soft Matter</i> , 2010, 6, 2475. | 1.2 | 63 |
| 100 | Directed Assembly of a Cylinder-Forming Diblock Copolymer: Topographic and Chemical Patterns. <i>Macromolecules</i> , 2010, 43, 6495-6504. | 2.2 | 57 |
| 101 | Hydrodynamic effects on the translocation rate of a polymer through a pore. <i>Journal of Chemical Physics</i> , 2009, 131, 044904. | 1.2 | 27 |
| 102 | Theoretically informed coarse grain simulations of polymeric systems. <i>Journal of Chemical Physics</i> , 2009, 131, 084903. | 1.2 | 113 |
| 103 | Association of Helical β -Peptides and their Aggregation Behavior from the Potential of Mean Force in Explicit Solvent. <i>Biophysical Journal</i> , 2009, 96, 4349-4362. | 0.2 | 15 |
| 104 | Tethered DNA dynamics in shear flow. <i>Journal of Chemical Physics</i> , 2009, 130, 234902. | 1.2 | 36 |
| 105 | Monte Carlo Simulation of Coarse Grain Polymeric Systems. <i>Physical Review Letters</i> , 2009, 102, 197801. | 2.9 | 126 |
| 106 | Theoretically informed coarse grain simulations of block copolymer melts: method and applications. <i>Soft Matter</i> , 2009, 5, 4858. | 1.2 | 91 |
| 107 | Fluorinated Quaternary Ammonium Salts as Dissolution Aids for Polar Polymers in Environmentally Benign Supercritical Carbon Dioxide. <i>Chemistry of Materials</i> , 2009, 21, 3125-3135. | 3.2 | 13 |
| 108 | Multiple free energy minima in systems of confined tethered polymers toward soft nanomechanical bistable elements. <i>Soft Matter</i> , 2009, 5, 3694. | 1.2 | 4 |

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|-----|---|-----|-----------|
| 109 | Elongation and migration of single DNA molecules in microchannels using oscillatory shear flows. Lab on A Chip, 2009, 9, 2348. | 3.1 | 74 |
| 110 | Molecular plasticity of polymeric glasses in the elastic regime. Physical Review E, 2008, 77, 041502. | 0.8 | 71 |
| 111 | Directed Copolymer Assembly on Chemical Substrate Patterns: A Phenomenological and Single-Chain-in-Mean-Field Simulations Study of the Influence of Roughness in the Substrate Pattern. Langmuir, 2008, 24, 1284-1295. | 1.6 | 70 |
| 112 | The effect of hydrodynamic interactions on the dynamics of DNA translocation through pores. Journal of Chemical Physics, 2008, 128, 085102. | 1.2 | 57 |
| 113 | Hierarchical Assembly of Nanoparticle Superstructures from Block Copolymer-Nanoparticle Composites. Physical Review Letters, 2008, 100, 148303. | 2.9 | 126 |
| 114 | Monte Carlo Simulations of a Coarse Grain Model for Block Copolymers and Nanocomposites. Macromolecules, 2008, 41, 4989-5001. | 2.2 | 198 |
| 115 | Density Multiplication and Improved Lithography by Directed Block Copolymer Assembly. Science, 2008, 321, 936-939. | 6.0 | 1,099 |
| 116 | Rapid Directed Assembly of Block Copolymer Films at Elevated Temperatures. Macromolecules, 2008, 41, 2759-2761. | 2.2 | 145 |
| 117 | A single-molecule barcoding system using nanoslits for DNA analysis. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 2673-2678. | 3.3 | 285 |
| 118 | A coarse grain model for DNA. Journal of Chemical Physics, 2007, 126, 084901. | 1.2 | 271 |
| 119 | Nanoparticles in nematic liquid crystals: Interactions with nanochannels. Journal of Chemical Physics, 2007, 127, 124702. | 1.2 | 34 |
| 120 | Directed Self-Assembly of Block Copolymers for Nanolithography: Fabrication of Isolated Features and Essential Integrated Circuit Geometries. ACS Nano, 2007, 1, 168-175. | 7.3 | 424 |
| 121 | Fast Computation of Many-Particle Hydrodynamic and Electrostatic Interactions in a Confined Geometry. Physical Review Letters, 2007, 98, 140602. | 2.9 | 134 |
| 122 | Calculation of local mechanical properties of filled polymers. Physical Review E, 2007, 75, 031803. | 0.8 | 96 |
| 123 | Dimensions and Shapes of Block Copolymer Domains Assembled on Lithographically Defined Chemically Patterned Substrates. Macromolecules, 2007, 40, 90-96. | 2.2 | 137 |
| 124 | Engineering the Stem Cell Microenvironment. Biotechnology Progress, 2007, 23, 18-23. | 1.3 | 114 |
| 125 | Concentration dependence of shear and extensional rheology of polymer solutions: Brownian dynamics simulations. Journal of Rheology, 2006, 50, 137-167. | 1.3 | 80 |
| 126 | Fabrication of Complex Three-Dimensional Nanostructures from Self-Assembling Block Copolymer Materials on Two-Dimensional Chemically Patterned Templates with Mismatched Symmetry. Physical Review Letters, 2006, 96, 036104. | 2.9 | 110 |

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|-----|---|-----|-----------|
| 127 | Cross-stream-line migration in confined flowing polymer solutions: Theory and simulation. <i>Physics of Fluids</i> , 2006, 18, 123101. | 1.6 | 59 |
| 128 | Cross-Stream Migration of Flexible Molecules in a Nanochannel. <i>Physical Review Letters</i> , 2006, 96, 224505. | 2.9 | 66 |
| 129 | Effects of trehalose on the phase behavior of DPPC-cholesterol unilamellar vesicles. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2006, 1758, 65-73. | 1.4 | 77 |
| 130 | Directed assembly of copolymer materials on patterned substrates: Balance of simple symmetries in complex structures. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2006, 44, 2589-2604. | 2.4 | 19 |
| 131 | Morphology of multi-component polymer systems: single chain in mean field simulation studies. <i>Soft Matter</i> , 2006, 2, 573-583. | 1.2 | 134 |
| 132 | 3-D microwell culture of human embryonic stem cells. <i>Biomaterials</i> , 2006, 27, 6032-6042. | 5.7 | 216 |
| 133 | Inhibition of human embryonic stem cell differentiation by mechanical strain. <i>Journal of Cellular Physiology</i> , 2006, 206, 126-137. | 2.0 | 143 |
| 134 | Influence of Confinement on the Fragility of Antiplasticized and Pure Polymer Films. <i>Physical Review Letters</i> , 2006, 97, 045502. | 2.9 | 181 |
| 135 | NlogN method for hydrodynamic interactions of confined polymer systems: Brownian dynamics. <i>Journal of Chemical Physics</i> , 2006, 125, 164906. | 1.2 | 32 |
| 136 | Platelet cryopreservation using a trehalose and phosphate formulation. <i>Biotechnology and Bioengineering</i> , 2005, 92, 79-90. | 1.7 | 19 |
| 137 | Molecular and multiscale modeling in chemical engineering - current view and future perspectives. <i>AIChE Journal</i> , 2005, 51, 2371-2376. | 1.8 | 47 |
| 138 | Mechanism and kinetics of ordering in diblock copolymer thin films on chemically nanopatterned substrates. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2005, 43, 3444-3459. | 2.4 | 89 |
| 139 | Local dynamic mechanical properties in model free-standing polymer thin films. <i>Journal of Chemical Physics</i> , 2005, 122, 144712. | 1.2 | 75 |
| 140 | Modulating Membrane Properties: The Effect of Trehalose and Cholesterol on a Phospholipid Bilayer. <i>Journal of Physical Chemistry B</i> , 2005, 109, 24173-24181. | 1.2 | 63 |
| 141 | Phase behavior of freeze-dried phospholipid-cholesterol mixtures stabilized with trehalose. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2005, 1713, 57-64. | 1.4 | 72 |
| 142 | Interactions of Liquid Crystal-Forming Molecules with Phospholipid Bilayers Studied by Molecular Dynamics Simulations. <i>Biophysical Journal</i> , 2005, 89, 3141-3158. | 0.2 | 20 |
| 143 | Directed Assembly of Block Copolymer Blends into Nonregular Device-Oriented Structures. <i>Science</i> , 2005, 308, 1442-1446. | 6.0 | 912 |
| 144 | Influence of confinement on the vibrational density of states and the Boson peak in a polymer glass. <i>Journal of Chemical Physics</i> , 2004, 120, 9371-9375. | 1.2 | 36 |

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|-----|--|------|-----------|
| 145 | Shear-induced migration in flowing polymer solutions: Simulation of long-chain DNA in microchannels. <i>Journal of Chemical Physics</i> , 2004, 120, 2513-2529. | 1.2 | 228 |
| 146 | Simulation of the effects of chain architecture on the sorption of ethylene in polyethylene. <i>Journal of Chemical Physics</i> , 2004, 120, 11304-11315. | 1.2 | 42 |
| 147 | Effect of pH, Counter Ion, and Phosphate Concentration on the Glass Transition Temperature of Freeze-Dried Sugar-Phosphate Mixtures. <i>Pharmaceutical Research</i> , 2004, 21, 1615-1621. | 1.7 | 53 |
| 148 | Cryopreservation of adherent human embryonic stem cells. <i>Biotechnology and Bioengineering</i> , 2004, 88, 299-312. | 1.7 | 124 |
| 149 | Ethylene and 1-Hexene Sorption in LLDPE under Typical Gas Phase Reactor Conditions: A Priori Simulation and Modeling for Prediction of Experimental Observations. <i>Macromolecules</i> , 2004, 37, 9139-9150. | 2.2 | 59 |
| 150 | A Microfluidic System for Large DNA Molecule Arrays. <i>Analytical Chemistry</i> , 2004, 76, 5293-5301. | 3.2 | 175 |
| 151 | Simulation of Vapor-Liquid Phase Equilibria of Primary Alcohols and Alcohol-Alkane Mixtures. <i>Journal of Physical Chemistry B</i> , 2004, 108, 10071-10076. | 1.2 | 37 |
| 152 | Investigation of Transition States in Bulk and Freestanding Film Polymer Glasses. <i>Physical Review Letters</i> , 2004, 92, 155505. | 2.9 | 59 |
| 153 | Effect of sugar-phosphate mixtures on the stability of DPPC membranes in dehydrated systems. <i>Cryobiology</i> , 2004, 48, 81-89. | 0.3 | 32 |
| 154 | Epitaxial self-assembly of block copolymers on lithographically defined nanopatterned substrates. <i>Nature</i> , 2003, 424, 411-414. | 18.7 | 1,594 |
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