

Philip R Leduc

List of Publications by Year in descending order

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Version: 2024-02-01

161
papers

4,365
citations

126858

33
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118793

62
g-index

164
all docs

164
docs citations

164
times ranked

5893
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Cell alignment modulated by surface nano-topography â€“ Roles of cell-matrix and cell-cell interactions. <i>Acta Biomaterialia</i> , 2022, 142, 149-159. | 4.1 | 15 |
| 2 | Microfluidics for understanding model organisms. <i>Nature Communications</i> , 2022, 13, . | 5.8 | 15 |
| 3 | Freeform 3D Ice Printing (3Dâ€ICE) at the Micro Scale. <i>Advanced Science</i> , 2022, 9, . | 5.6 | 5 |
| 4 | Toward sustainable desalination using food waste: capacitive desalination with bread-derived electrodes. <i>RSC Advances</i> , 2021, 11, 9628-9637. | 1.7 | 6 |
| 5 | 3D Collagen Vascular Tumor-on-a-Chip Mimetics for Dynamic Combinatorial Drug Screening. <i>Molecular Cancer Therapeutics</i> , 2021, 20, 1210-1219. | 1.9 | 6 |
| 6 | Fe-Doped Copolymer-Templated Nitrogen-Rich Carbon as a PGM-Free Fuel Cell Catalyst. <i>ACS Applied Energy Materials</i> , 2021, 4, 9653-9663. | 2.5 | 5 |
| 7 | Decidual Vasculopathy Identification in Whole Slide Images Using Multiresolution Hierarchical Convolutional Neural Networks. <i>American Journal of Pathology</i> , 2020, 190, 2111-2122. | 1.9 | 17 |
| 8 | Hierarchical Machine Learning for High-Fidelity 3D Printed Biopolymers. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 7021-7031. | 2.6 | 44 |
| 9 | Probing coordinated co-culture cancer related motility through differential micro-compartmentalized elastic substrates. <i>Scientific Reports</i> , 2020, 10, 18519. | 1.6 | 3 |
| 10 | Toward Vasculature in Skeletal Muscle-on-a-Chip through Thermo-Responsive Sacrificial Templates. <i>Micromachines</i> , 2020, 11, 907. | 1.4 | 16 |
| 11 | 3D In Vitro Neuron on a Chip for Probing Calcium Mechanostimulation. <i>Advanced Biology</i> , 2020, 4, e2000080. | 3.0 | 3 |
| 12 | Written in Blood: Applying Shape Grammars to Retinal Vasculatures. <i>Translational Vision Science and Technology</i> , 2020, 9, 36. | 1.1 | 3 |
| 13 | Polycarbonate Heat Molding for Soft Lithography. <i>Small</i> , 2020, 16, e2000241. | 5.2 | 13 |
| 14 | Chemotactic Responses of Jurkat Cells in Microfluidic Flow-Free Gradient Chambers. <i>Micromachines</i> , 2020, 11, 384. | 1.4 | 6 |
| 15 | A biosensing soft robot: Autonomous parsing of chemical signals through integrated organic and inorganic interfaces. <i>Science Robotics</i> , 2019, 4, . | 9.9 | 85 |
| 16 | High-throughput mechanotransduction in <i>Drosophila</i> embryos with mesofluidics. <i>Lab on A Chip</i> , 2019, 19, 1141-1152. | 3.1 | 18 |
| 17 | Intact mangrove root electrodes for desalination. <i>RSC Advances</i> , 2019, 9, 4735-4743. | 1.7 | 6 |
| 18 | Bio-inspired soft robotics: Material selection, actuation, and design. <i>Extreme Mechanics Letters</i> , 2018, 22, 51-59. | 2.0 | 247 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | Efficient probabilistic grammar induction for design. <i>Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM</i> , 2018, 32, 177-188. | 0.7 | 7 |
| 20 | Biomimetic scaffolds with three-dimensional undulated microtopographies. <i>Biomaterials</i> , 2017, 128, 109-120. | 5.7 | 33 |
| 21 | Drop casting of stiffness gradients for chip integration into stretchable substrates. <i>Journal of Micromechanics and Microengineering</i> , 2017, 27, 045018. | 1.5 | 10 |
| 22 | Robust mechanobiological behavior emerges in heterogeneous myosin systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E8147-E8154. | 3.3 | 5 |
| 23 | How can we predict cellular mechanosensation?. <i>Physics of Life Reviews</i> , 2017, 22-23, 120-122. | 1.5 | 3 |
| 24 | 2D and 3D Mechanobiology in Human and Nonhuman Systems. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 21869-21882. | 4.0 | 10 |
| 25 | The D3 Methodology: Bridging Science and Design for Bio-Based Product Development. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2016, 138, . | 1.7 | 10 |
| 26 | Material Gradients in Stretchable Substrates toward Integrated Electronic Functionality. <i>Advanced Materials</i> , 2016, 28, 3584-3591. | 11.1 | 52 |
| 27 | Improving human understanding and design of complex multi-level systems with animation and parametric relationship supports. <i>Design Science</i> , 2015, 1, . | 1.1 | 9 |
| 28 | Structurally Governed Cell Mechanotransduction through Multiscale Modeling. <i>Scientific Reports</i> , 2015, 5, 8622. | 1.6 | 10 |
| 29 | The D3 Science-to-Design Methodology: Automated and Cognitive-Based Processes for Discovering, Describing, and Designing Complex Nanomechanical Biosystems. , 2015, , . | | 4 |
| 30 | Cellular force signal integration through vector logic gates. <i>Journal of Biomechanics</i> , 2015, 48, 613-620. | 0.9 | 5 |
| 31 | Sudden motility reversal indicates sensing of magnetic field gradients in <i>Magnetospirillum magneticum</i> AMB-1 strain. <i>ISME Journal</i> , 2015, 9, 1399-1409. | 4.4 | 20 |
| 32 | Emergent Systems Energy Laws for Predicting Myosin Ensemble Processivity. <i>PLoS Computational Biology</i> , 2015, 11, e1004177. | 1.5 | 13 |
| 33 | The role of mechanics in biological and bio-inspired systems. <i>Nature Communications</i> , 2015, 6, 7418. | 5.8 | 170 |
| 34 | 3D bio-etching of a complex composite-like embryonic tissue. <i>Lab on A Chip</i> , 2015, 15, 3293-3299. | 3.1 | 4 |
| 35 | Controlled surface topography regulates collective 3D migration by epithelial-mesenchymal composite embryonic tissues. <i>Biomaterials</i> , 2015, 58, 1-9. | 5.7 | 21 |
| 36 | Synergistic human-agent methods for deriving effective search strategies: the case of nanoscale design. <i>Research in Engineering Design - Theory, Applications, and Concurrent Engineering</i> , 2015, 26, 145-169. | 1.2 | 16 |

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|----|---|------|-----------|
| 37 | Beyond Disease, How Biomedical Engineering Can Improve Global Health. <i>Science Translational Medicine</i> , 2014, 6, 266fs48. | 5.8 | 10 |
| 38 | Probing Collective Migration of a Complex Multi-Cellular Embryonic Tissue Through Novel 3D Bioetching. <i>Biophysical Journal</i> , 2014, 106, 172a. | 0.2 | 0 |
| 39 | Engineering living systems on chips: from cells to human on chips. <i>Microfluidics and Nanofluidics</i> , 2014, 16, 907-920. | 1.0 | 35 |
| 40 | Mechanochemical actuators of embryonic epithelial contractility. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 14366-14371. | 3.3 | 34 |
| 41 | Reply to 'Complexity of molecular crowding in cell-free enzymatic reaction networks'. <i>Nature Nanotechnology</i> , 2014, 9, 407-408. | 15.6 | 0 |
| 42 | Using Atomic Force Microscopy to Probe Microalgal Response. <i>Biophysical Journal</i> , 2014, 106, 390a. | 0.2 | 0 |
| 43 | Integrating Synthetic Cells and Flexible Electronics for the Control of Bio-Opto-Fluidic Materials. <i>Biophysical Journal</i> , 2014, 106, 617a-618a. | 0.2 | 2 |
| 44 | Controlling Magnetotactic Bacteria through an Integrated Nanofabricated Metallic Island and Optical Microscope Approach. <i>Scientific Reports</i> , 2014, 4, 4104. | 1.6 | 8 |
| 45 | Molecular crowding shapes gene expression in synthetic cellular nanosystems. <i>Nature Nanotechnology</i> , 2013, 8, 602-608. | 15.6 | 215 |
| 46 | Topological Control of Cell Sheet Migration by the 3D Microenvironment. <i>Biophysical Journal</i> , 2013, 104, 147a. | 0.2 | 1 |
| 47 | Understanding Cellular Energy Harvesting through Piezoelectric Polymers with Cellular Interfaces. <i>Biophysical Journal</i> , 2013, 104, 530a-531a. | 0.2 | 0 |
| 48 | Analyzing the Early Tissue Mechanical Response to Chemokine Signaling using Microfluidics. <i>Biophysical Journal</i> , 2013, 104, 320a. | 0.2 | 0 |
| 49 | Controlled Envelopment of Magnetic Particles within Liposomes using a Custom-Built Multi-Layer Magnetic Microfluidic Device. <i>Biophysical Journal</i> , 2013, 104, 546a. | 0.2 | 0 |
| 50 | Design of Complex Biologically Based Nanoscale Systems Using Multi-Agent Simulations and Structure-Function Representations. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2013, 135, . | 1.7 | 11 |
| 51 | Modeling Mechanotransduction Signaling through Actin Filament Network Deformation Linked to Biochemical Response. <i>Biophysical Journal</i> , 2013, 104, 317a-318a. | 0.2 | 1 |
| 52 | Exploring the Mechanics of Magnetically Driven Motility in Magnetotactic Bacteria through Genetic Regulation. <i>Biophysical Journal</i> , 2013, 104, 640a-641a. | 0.2 | 0 |
| 53 | Probing Why Nature may Favor Heterogeneous Myosin Systems through Single Molecule and Systems Level Approaches. <i>Biophysical Journal</i> , 2013, 104, 496a. | 0.2 | 0 |
| 54 | Understanding the Mechanical Properties of Microalgae using Atomic Force Microscopy. <i>Biophysical Journal</i> , 2013, 104, 513a. | 0.2 | 1 |

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|----|---|-----|-----------|
| 55 | Probing the dynamic responses of individual actin filaments under fluidic mechanical stimulation via microfluidics. <i>Applied Physics Letters</i> , 2013, 102, 193704. | 1.5 | 1 |
| 56 | Modeling and Control of a Nonlinear Mechanism for High Performance Microfluidic Systems. <i>IEEE Transactions on Control Systems Technology</i> , 2013, 21, 203-211. | 3.2 | 10 |
| 57 | Biological colloid engineering: Self-assembly of dipolar ferromagnetic chains in a functionalized biogenic ferrofluid. <i>Applied Physics Letters</i> , 2012, 101, 063701. | 1.5 | 12 |
| 58 | Cells gain traction in 3D. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 11060-11061. | 3.3 | 6 |
| 59 | Design of Complex Nano-Scale Systems Using Multi-Agent Simulations and Structure-Behavior-Function Representations. , 2012, , . | | 1 |
| 60 | Calcium signaling is gated by a mechanical threshold in three-dimensional environments. <i>Scientific Reports</i> , 2012, 2, 554. | 1.6 | 9 |
| 61 | Frontiers of optofluidics in synthetic biology. <i>Lab on A Chip</i> , 2012, 12, 3654. | 3.1 | 12 |
| 62 | Controlling Embryonic Cell Sheet Migration using Microfluidics. <i>Biophysical Journal</i> , 2012, 102, 417a. | 0.2 | 0 |
| 63 | Magnetically-Induced Genetic Response of Magnetotactic Bacteria. <i>Biophysical Journal</i> , 2012, 102, 731a. | 0.2 | 0 |
| 64 | Mechanical Loading of Stem Cells for Improvement of Transplantation Outcome in a Model of Acute Myocardial Infarction: The Role of Loading History. <i>Tissue Engineering - Part A</i> , 2012, 18, 1101-1108. | 1.6 | 25 |
| 65 | Disruptive Microfluidics: From Life Sciences to World Health to Energy. <i>Disruptive Science and Technology</i> , 2012, 1, 41-53. | 1.0 | 10 |
| 66 | Three-dimensional microfiber devices that mimic physiological environments to probe cell mechanics and signaling. <i>Lab on A Chip</i> , 2012, 12, 1775. | 3.1 | 15 |
| 67 | Engineering Magnetic Nanomaterial Production in Magnetotactic Bacteria Through Gene Regulation. , 2012, , . | | 0 |
| 68 | Programmed Biologically Inspired Synthetic Templating of Multifunctional Nanoarchitectures for Small-Scale Reactions. <i>European Journal of Inorganic Chemistry</i> , 2012, 2012, 5405-5410. | 1.0 | 1 |
| 69 | Three-Dimensional Stochastic Off-Lattice Model of Binding Chemistry in Crowded Environments. <i>PLoS ONE</i> , 2012, 7, e30131. | 1.1 | 3 |
| 70 | Sensing of Local, Highly Concentrated Magnetic Field Gradients in Magnetotactic Bacteria Induces Motility Reversal. , 2012, , . | | 0 |
| 71 | Localized neurite outgrowth sensing via substrates with alternative rigidities. <i>Soft Matter</i> , 2011, 7, 9871. | 1.2 | 22 |
| 72 | Investigating Circular Dorsal Ruffles through Varying Substrate Stiffness and Mathematical Modeling. <i>Biophysical Journal</i> , 2011, 101, 2122-2130. | 0.2 | 31 |

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|----|--|-----|-----------|
| 73 | How Do Control-Based Approaches Enter into Biology?. Annual Review of Biomedical Engineering, 2011, 13, 369-396. | 5.7 | 48 |
| 74 | Fabrication of circular microfluidic channels by combining mechanical micromilling and soft lithography. Lab on A Chip, 2011, 11, 1550. | 3.1 | 127 |
| 75 | Dynamic control of 3D chemical profiles with a single 2D microfluidic platform. Lab on A Chip, 2011, 11, 2182. | 3.1 | 12 |
| 76 | Imposing Local Magnetic Fields to Control Magnetotactic Bacteria Through Combining Microfabrication and Magnetism. Biophysical Journal, 2011, 100, 514a. | 0.2 | 0 |
| 77 | Detection of Dynamic Spatiotemporal Response to Periodic Chemical Stimulation in a Xenopus Embryonic Tissue. PLoS ONE, 2011, 6, e14624. | 1.1 | 35 |
| 78 | Unified regression model of binding equilibria in crowded environments. Scientific Reports, 2011, 1, 97. | 1.6 | 7 |
| 79 | Maskless fabrication of small-scale structures through controlling phase interactions. Applied Physics A: Materials Science and Processing, 2011, 102, 185-188. | 1.1 | 1 |
| 80 | Microbial electricity generation via microfluidic flow control. Biotechnology and Bioengineering, 2011, 108, 2061-2069. | 1.7 | 62 |
| 81 | Response of an actin filament network model under cyclic stretching through a coarse grained Monte Carlo approach. Journal of Theoretical Biology, 2011, 274, 109-119. | 0.8 | 39 |
| 82 | Localized bimodal response of neurite extensions and structural proteins in dorsal-root ganglion neurons with controlled polydimethylsiloxane substrate stiffness. Journal of Biomechanics, 2011, 44, 856-862. | 0.9 | 35 |
| 83 | Modulating material interfaces through biologically-inspired intermediates. Applied Physics Letters, 2011, 99, 233701. | 1.5 | 4 |
| 84 | Bioinspirations: Cell-Inspired Small-Scale Systems for Enabling Studies in Experimental Biomechanics. Integrative and Comparative Biology, 2011, 51, 133-141. | 0.9 | 2 |
| 85 | Automated high-throughput screening of carbon nanotube-based bio-nanocomposites for bone cement applications. Pure and Applied Chemistry, 2011, 83, 2063-2069. | 0.9 | 1 |
| 86 | Mechanical stretch and shear flow induced reorganization and recruitment of fibronectin in fibroblasts. Scientific Reports, 2011, 1, 147. | 1.6 | 40 |
| 87 | A Design Exploration of Genetically Engineered Myosin Motors. , 2011, , . | | 1 |
| 88 | Probing Cell Structure Responses Through a Shear and Stretching Mechanical Stimulation Technique. Cell Biochemistry and Biophysics, 2010, 56, 115-124. | 0.9 | 50 |
| 89 | Probing localized neural mechanotransduction through surface-modified elastomeric matrices and electrophysiology. Nature Protocols, 2010, 5, 714-724. | 5.5 | 44 |
| 90 | Nonlinear modeling and control of a mechanically coupled variable resistance and squeeze pump for pressure regulation in microfluidics. , 2010, , . | | 1 |

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|-----|--|-----|-----------|
| 91 | Nonlinear Modeling for Interface Control in a Three-Lane Microfluidic Channel. , 2010, , . | | 0 |
| 92 | Control of Extracellular Matrix Organization through Coupled Mechanical and Chemical Inputs. Biophysical Journal, 2010, 98, 732a. | 0.2 | 0 |
| 93 | Micropatterning Biomanufactured Single-Domain Nanoparticles using Self-Assembly to form Artificial Magnetosome Chains. Biophysical Journal, 2010, 98, 730a. | 0.2 | 0 |
| 94 | Thermally Tunable Polymer Microlenses for Biological Imaging. Journal of Microelectromechanical Systems, 2010, 19, 1444-1449. | 1.7 | 8 |
| 95 | Probing the Response of Structural Proteins To Mechanical Stimulation in Neuroblasts. Biophysical Journal, 2010, 98, 19a. | 0.2 | 0 |
| 96 | Simulation Study of Binding Chemistry in Crowded Conditions Using Two- and Three-Dimensional Stochastic Off-Lattice Models. Biophysical Journal, 2010, 98, 58a. | 0.2 | 0 |
| 97 | Three-Dimensional Chemical Profile Manipulation Using Two-Dimensional Autonomous Microfluidic Control. Journal of the American Chemical Society, 2010, 132, 1339-1347. | 6.6 | 13 |
| 98 | Integrated biomimetic carbon nanotube composites for in vivo systems. Nanoscale, 2010, 2, 2855. | 2.8 | 35 |
| 99 | Probing Dynamic Responses of the Extracellular Matrix to Coupled Mechanical and Chemical Inputs. , 2010, , . | | 0 |
| 100 | Probing Nonlinear Cellular Responses to Integrated Mechanical Signals Through Examining Cell Alignment. , 2010, , . | | 0 |
| 101 | Understanding Sensory Nerve Mechanotransduction through Localized Elastomeric Matrix Control. PLoS ONE, 2009, 4, e4293. | 1.1 | 61 |
| 102 | Parameter effects on binding chemistry in crowded media using a two-dimensional stochastic off-lattice model. Physical Review E, 2009, 80, 041918. | 0.8 | 4 |
| 103 | Core-shell CdSe/ZnS Quantum dots as a dual mode spatiotemporal microscopy probe for understanding cellular responses. Proceedings of SPIE, 2009, , . | 0.8 | 1 |
| 104 | Defining the role of syndecan-4 in mechanotransduction using surface-modification approaches. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 22102-22107. | 3.3 | 109 |
| 105 | Dissecting the Molecular Basis of the Mechanics of Living Cells. Experimental Mechanics, 2009, 49, 11-23. | 1.1 | 20 |
| 106 | Spatiotemporal Control of Apical and Basal Living Subcellular Chemical Environments Through Vertical Phase Separation. Small, 2009, 5, 1984-1989. | 5.2 | 5 |
| 107 | Probing cell structure by controlling the mechanical environment with cell's substrate interactions. Journal of Biomechanics, 2009, 42, 187-192. | 0.9 | 55 |
| 108 | Composite polymer systems with control of local substrate elasticity and their effect on cytoskeletal and morphological characteristics of adherent cells. Biomaterials, 2009, 30, 3136-3142. | 5.7 | 93 |

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|-----|--|------|-----------|
| 109 | Structure and dynamics of single DNA molecules manipulated by magnetic tweezers and or flow. <i>Methods</i> , 2009, 47, 214-222. | 1.9 | 16 |
| 110 | Fabricating small-scale, curved, polymeric structures with convex and concave menisci through interfacial free energy equilibrium. <i>Lab on A Chip</i> , 2009, 9, 3306. | 3.1 | 16 |
| 111 | Modulation of fluidic resistance and capacitance for long-term, high-speed feedback control of a microfluidic interface. <i>Lab on A Chip</i> , 2009, 9, 2603. | 3.1 | 41 |
| 112 | Dynamics of individual polymers using microfluidic based microcurvilinear flow. <i>Lab on A Chip</i> , 2009, 9, 2339. | 3.1 | 6 |
| 113 | Probing Cellular Dynamics with a Chemical Signal Generator. <i>PLoS ONE</i> , 2009, 4, e4847. | 1.1 | 53 |
| 114 | Stem Cell Transplantation for Cardiac Repair is Improved by Mechanical Preconditioning. <i>FASEB Journal</i> , 2009, 23, 362.9. | 0.2 | 0 |
| 115 | Effects of Mechanical Strain on Structural and Actin-Binding Proteins in Neuroblasts. , 2009, , . | | 0 |
| 116 | Examining Adaptive Extracellular Responses of Living Cells Under Mechanical Stimulation Through Probing Fibronectin Response. , 2009, , . | | 0 |
| 117 | Controlling the mechanics and nanotopography of biocompatible scaffolds through dielectrophoresis with carbon nanotubes. <i>Electrophoresis</i> , 2008, 29, 3123-3127. | 1.3 | 6 |
| 118 | Structural Phase Coexistence under Reversible Thermal Control. <i>Advanced Materials</i> , 2008, 20, 953-958. | 11.1 | 5 |
| 119 | Artificial cells: building bioinspired systems using small-scale biology. <i>Trends in Biotechnology</i> , 2008, 26, 14-20. | 4.9 | 91 |
| 120 | Spatiotemporal Response of Living Cell Structures in <i>Dictyostelium discoideum</i> with Semiconductor Quantum Dots. <i>Nano Letters</i> , 2008, 8, 1303-1308. | 4.5 | 16 |
| 121 | Investigation of Calcium Mechanotransduction by Quasi 3-D Microfiber Mechanical Stimulation of Cells. , 2008, , . | | 0 |
| 122 | Creating cellular and molecular patterns via gravitational force with liquid droplets. <i>Applied Physics Letters</i> , 2008, 93, . | 1.5 | 6 |
| 123 | Thermally tunable polymer microlenses. <i>Applied Physics Letters</i> , 2008, 92, 251904. | 1.5 | 19 |
| 124 | Stochastic off-lattice modeling of molecular self-assembly in crowded environments by Greenâ€™s function reaction dynamics. <i>Physical Review E</i> , 2008, 78, 031911. | 0.8 | 17 |
| 125 | Photochemical three-dimensional fabrication with nanopore membranes for biological applications. , 2008, , . | | 1 |
| 126 | Controlled Waveform Chemical Stimulus of Cellular Subdomains for System Identification. , 2008, , . | | 0 |

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|-----|---|------|-----------|
| 127 | Understanding Biological Structures Through Exploring the Mechanical Response of Cell-Like Systems. , 2008, , . | | 0 |
| 128 | Thermally Adjustable Microlenses for Biological Imaging. , 2007, , . | | 0 |
| 129 | Modeling molecular interactions to understand spatial crowding effects on heterodimer formations. Physical Review E, 2007, 76, 041904. | 0.8 | 6 |
| 130 | Subfeature patterning of organic and inorganic materials using robotic assembly. Journal of Materials Research, 2007, 22, 1601-1608. | 1.2 | 11 |
| 131 | Pressure-driven spatiotemporal control of the laminar flow interface in a microfluidic network. Lab on A Chip, 2007, 7, 647. | 3.1 | 56 |
| 132 | Chemically Encapsulated Structural Elements for Probing the Mechanical Responses of Biologically Inspired Systems. Langmuir, 2007, 23, 8129-8134. | 1.6 | 19 |
| 133 | Creating Ordered Small-Scale Biologically-Based Rods through Force-Controlled Stamping. Journal of the American Chemical Society, 2007, 129, 9546-9547. | 6.6 | 7 |
| 134 | Controlled geometry fabrication of polydimethylsiloxane nanofibers for biomimetics. Journal of Applied Polymer Science, 2007, 105, 2549-2552. | 1.3 | 3 |
| 135 | Using Lessons from Cellular and Molecular Structures for Future Materials. Advanced Materials, 2007, 19, 3761-3770. | 11.1 | 43 |
| 136 | Towards an in vivo biologically inspired nanofactory. Nature Nanotechnology, 2007, 2, 3-7. | 15.6 | 172 |
| 137 | Computational models of molecular self-organization in cellular environments. Cell Biochemistry and Biophysics, 2007, 48, 16-31. | 0.9 | 12 |
| 138 | Stretch-Activated Calcium Signal Propagation Following Mechanical Stimulation of Focal Adhesions. , 2007, , . | | 0 |
| 139 | Effects of Local Mechanical Stimulation on Cellular Behavior. , 2007, , . | | 0 |
| 140 | Micropatterning polyvinyl alcohol as a biomimetic material through soft lithography with cell culture. Molecular BioSystems, 2006, 2, 299. | 2.9 | 32 |
| 141 | Force-Controlled Inorganic Crystallization Lithography. Journal of the American Chemical Society, 2006, 128, 12080-12081. | 6.6 | 7 |
| 142 | Evaluating Spatial Constraints in Cellular Assembly Processes Using a Monte Carlo Approach. Cell Biochemistry and Biophysics, 2006, 45, 195-202. | 0.9 | 8 |
| 143 | Nanoscale Intracellular Organization and Functional Architecture Mediating Cellular Behavior. Annals of Biomedical Engineering, 2006, 34, 102-113. | 1.3 | 25 |
| 144 | Microdrilling for fabricating micrometer-scale holes in soft matter. Applied Physics A: Materials Science and Processing, 2006, 85, 195-198. | 1.1 | 2 |

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|-----|--|------|-----------|
| 145 | Polymeric microlenses for real-time aqueous and nonaqueous organic imaging. Applied Physics Letters, 2006, 88, 053902. | 1.5 | 9 |
| 146 | Three-dimensional molecular phase separation and flow patterns with novel multilevel fluidics. MCB Molecular and Cellular Biomechanics, 2006, 3, 69-77. | 0.3 | 1 |
| 147 | Optical fabrication of three-dimensional polymeric microstructures. Applied Physics Letters, 2005, 87, 164104. | 1.5 | 4 |
| 148 | Ablation of cytoskeletal filaments and mitochondria in live cells using a femtosecond laser nanoscissor. MCB Mechanics and Chemistry of Biosystems, 2005, 2, 17-25. | 0.3 | 36 |
| 149 | Integrated Lithographic Membranes and Surface Adhesion Chemistry for Three-Dimensional Cellular Stimulation. Langmuir, 2004, 20, 11552-11556. | 1.6 | 31 |
| 150 | Understanding actin organization in cell structure through lattice based Monte Carlo simulations. MCB Mechanics and Chemistry of Biosystems, 2004, 1, 123-31. | 0.3 | 5 |
| 151 | Selective Chemical Treatment of Cellular Microdomains Using Multiple Laminar Streams. Chemistry and Biology, 2003, 10, 123-130. | 6.2 | 192 |
| 152 | Linking Molecular to Cellular Biomechanics With Nano- and Micro-Technology. , 2003, , 363. | | 0 |
| 153 | Use of Flexible Materials with a Novel Pressure Driven Equibiaxial Cell Stretching Device for Mechanical Stimulation of Single Mammalian Cells. Materials Research Society Symposia Proceedings, 2003, 773, 561. | 0.1 | 0 |
| 154 | Use of micropatterned adhesive surfaces for control of cell behavior. Methods in Cell Biology, 2002, 69, 385-401. | 0.5 | 31 |
| 155 | Controlling Mammalian Cell Spreading and Cytoskeletal Arrangement with Conveniently Fabricated Continuous Wavy Features on Poly(dimethylsiloxane). Langmuir, 2002, 18, 3273-3280. | 1.6 | 185 |
| 156 | Sequential involvement of Cdk1, mTOR and p53 in apoptosis induced by the HIV-1 envelope. EMBO Journal, 2002, 21, 4070-4080. | 3.5 | 146 |
| 157 | Subcellular positioning of small molecules. Nature, 2001, 411, 1016-1016. | 13.7 | 496 |
| 158 | Apoptosis of Syncytia Induced by the HIV-1 Envelope Glycoprotein Complex: Influence of Cell Shape and Size. Experimental Cell Research, 2000, 261, 119-126. | 1.2 | 25 |
| 159 | Dynamics of individual flexible polymers in a shear flow. Nature, 1999, 399, 564-566. | 13.7 | 202 |
| 160 | A platform for building PIC applications for control and instrumentation. , 0, , . | | 0 |
| 161 | Cell Alignment Modulated by Surface Nano-Topography Roles of Cell-Matrix and Cell-Cell Interactions. SSRN Electronic Journal, 0, , . | 0.4 | 0 |