

Nathan D Gallant

List of Publications by Year in descending order

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Version: 2024-02-01

39
papers

2,069
citations

361413
20
h-index

315739
38
g-index

41
all docs

41
docs citations

41
times ranked

3404
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Cell Adhesion Strengthening: Contributions of Adhesive Area, Integrin Binding, and Focal Adhesion Assembly. <i>Molecular Biology of the Cell</i> , 2005, 16, 4329-4340. | 2.1 | 373 |
| 2 | Crosslinking effect on polydimethylsiloxane elastic modulus measured by custom-built compression instrument. <i>Journal of Applied Polymer Science</i> , 2014, 131, . | 2.6 | 328 |
| 3 | Length-Dependent Uptake of DNA-Wrapped Single-Walled Carbon Nanotubes. <i>Advanced Materials</i> , 2007, 19, 939-945. | 21.0 | 142 |
| 4 | Universal Gradient Substrates for "Click" Biofunctionalization. <i>Advanced Materials</i> , 2007, 19, 965-969. | 21.0 | 124 |
| 5 | Synergistic enhancement of human bone marrow stromal cell proliferation and osteogenic differentiation on BMP-2-derived and RGD peptide concentration gradients. <i>Acta Biomaterialia</i> , 2011, 7, 2091-2100. | 8.3 | 110 |
| 6 | Micropatterned Surfaces to Engineer Focal Adhesions for Analysis of Cell Adhesion Strengthening. <i>Langmuir</i> , 2002, 18, 5579-5584. | 3.5 | 93 |
| 7 | Contractility modulates cell adhesion strengthening through focal adhesion kinase and assembly of vinculin-containing focal adhesions. <i>Journal of Cellular Physiology</i> , 2010, 223, 746-756. | 4.1 | 88 |
| 8 | Sheathless Size-Based Acoustic Particle Separation. <i>Sensors</i> , 2012, 12, 905-922. | 3.8 | 88 |
| 9 | Stick and Grip: Measurement Systems and Quantitative Analyses of Integrin-Mediated Cell Adhesion Strength. <i>Cell Biochemistry and Biophysics</i> , 2003, 39, 61-74. | 1.8 | 86 |
| 10 | The use of immobilized osteogenic growth peptide on gradient substrates synthesized via click chemistry to enhance MC3T3-E1 osteoblast proliferation. <i>Biomaterials</i> , 2010, 31, 1604-1611. | 11.4 | 77 |
| 11 | The modulation of dendritic cell integrin binding and activation by RGD-peptide density gradient substrates. <i>Biomaterials</i> , 2010, 31, 7444-7454. | 11.4 | 62 |
| 12 | Regulation of Cell Adhesion Strength by Peripheral Focal Adhesion Distribution. <i>Biophysical Journal</i> , 2011, 101, 2903-2911. | 0.5 | 60 |
| 13 | Model of integrin-mediated cell adhesion strengthening. <i>Journal of Biomechanics</i> , 2007, 40, 1301-1309. | 2.1 | 53 |
| 14 | Nanoindentation study of polydimethylsiloxane elastic modulus using Berkovich and flat punch tips. <i>Journal of Applied Polymer Science</i> , 2015, 132, . | 2.6 | 39 |
| 15 | Protein-surface interactions on stimuli-responsive polymeric biomaterials. <i>Biomedical Materials (Bristol)</i> , 2016, 11, 022002. | 3.3 | 38 |
| 16 | A Urinary Bcl-2 Surface Acoustic Wave Biosensor for Early Ovarian Cancer Detection. <i>Sensors</i> , 2012, 12, 7423-7437. | 3.8 | 30 |
| 17 | Comparison of the macroscale and microscale tests for measuring elastic properties of polydimethylsiloxane. <i>Journal of Applied Polymer Science</i> , 2015, 132, . | 2.6 | 27 |
| 18 | Thermoresponsive PNIPAM Coatings on Nanostructured Gratings for Cell Alignment and Release. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 11857-11862. | 8.0 | 25 |

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|----|---|-----|-----------|
| 19 | A Cell ELISA for the quantification of MUC1 mucin (CD227) expressed by cancer cells of epithelial and neuroectodermal origin. <i>Cellular Immunology</i> , 2015, 298, 96-103. | 3.0 | 22 |
| 20 | Micro- and Nano-Patterned Substrates to Manipulate Cell Adhesion. <i>Journal of Nanoscience and Nanotechnology</i> , 2007, 7, 803-807. | 0.9 | 21 |
| 21 | Surface Modification on Acoustic Wave Biosensors for Enhanced Specificity. <i>Sensors</i> , 2012, 12, 12317-12328. | 3.8 | 20 |
| 22 | Cellular response to phase-separated blends of tyrosine-derived polycarbonates. <i>Journal of Biomedical Materials Research - Part A</i> , 2006, 76A, 491-502. | 4.0 | 19 |
| 23 | Quantitative Analyses of Cell Adhesion Strength. <i>Methods in Molecular Biology</i> , 2007, 370, 83-95. | 0.9 | 19 |
| 24 | Shape-changing hydrogel surfaces trigger rapid release of patterned tissue modules. <i>Acta Biomaterialia</i> , 2015, 11, 96-103. | 8.3 | 18 |
| 25 | Mechanical characterization of crosslinking effect in polydimethylsiloxane using nanoindentation. <i>Polymer Testing</i> , 2016, 56, 329-336. | 4.8 | 17 |
| 26 | Responsive coatings from naturally occurring pectin polysaccharides. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 176, 387-393. | 5.0 | 13 |
| 27 | Time-dependent effects of pre-aging polymer films in cell culture medium on cell adhesion and spreading. <i>Journal of Materials Science: Materials in Medicine</i> , 2008, 19, 1759-1766. | 3.6 | 11 |
| 28 | Collagen production and niche engineering: A novel strategy for cancer cells to survive acidosis in DCIS and evolve. <i>Evolutionary Applications</i> , 2020, 13, 2689-2703. | 3.1 | 11 |
| 29 | Surface chemistry gradients on silicone elastomers for high-throughput modulation of cell adhesive interfaces. <i>Journal of Biomedical Materials Research - Part A</i> , 2015, 103, 2066-2076. | 4.0 | 8 |
| 30 | Laser machined micropatterns as corrosion protection of both hydrophobic and hydrophilic magnesium. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 125, 104920. | 3.1 | 8 |
| 31 | A combinatorial approach to protect sensory tissue against cisplatin-induced ototoxicity. <i>Hearing Research</i> , 2022, 415, 108430. | 2.0 | 7 |
| 32 | Combining Nonadhesive Materials into Microstructured Composite Surfaces Induces Cell Adhesion and Spreading. <i>ACS Biomaterials Science and Engineering</i> , 2015, 1, 1163-1173. | 5.2 | 6 |
| 33 | Effect of nordihydroguaiaretic acid cross-linking on fibrillar collagen: in vitro evaluation of fibroblast adhesion strength and migration. <i>AIMS Bioengineering</i> , 2017, 4, 300-317. | 1.1 | 6 |
| 34 | Cell sheet engineering for integrating functional tissue in vivo: Successes and challenges. <i>MRS Bulletin</i> , 2017, 42, 350-355. | 3.5 | 5 |
| 35 | Microtubules Mechanically Regulate Cell Adhesion Strengthening Via Cell Shape. <i>Cellular and Molecular Bioengineering</i> , 2014, 7, 136-144. | 2.1 | 4 |
| 36 | Microcontact printing of tissue precursors via geometrically patterned shape-changing hydrogel stamps preserves cell viability and organization. <i>Bioprinting</i> , 2017, 8, 22-29. | 5.8 | 4 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Adhesion and Particle Removal from Surface-Tethered Poly(<i>N</i> -Isopropylacrylamide) Coatings Using Hydrodynamic Shear Forces. Langmuir, 2019, 35, 15751-15758. | 3.5 | 3 |
| 38 | A Resistless Process for the Production of Patterned, Vertically Aligned ZnO Nanowires.. Materials Research Society Symposia Proceedings, 2011, 1302, 8201. | 0.1 | 1 |
| 39 | Regulation of Adhesion Strength by Focal Adhesion Position and Cell Shape. , 2012, , . | | 0 |