List of Publications by Year in descending order

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DONG SUNG KIM

| #  | Article   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Recent advances in engineering microparticles and their nascent utilization in biomedical delivery and diagnostic applications. Lab on A Chip, 2017, 17, 591-613.   | 6.0  | 107       |
| 2  | Electrolyteâ€Assisted Electrospinning for a Selfâ€Assembled, Freeâ€Standing Nanofiber Membrane on a<br>Curved Surface. Advanced Materials, 2015, 27, 1682-1687.   | 21.0 | 70        |
| 3  | Nanotopography Promotes Pancreatic Differentiation of Human Embryonic Stem Cells and Induced Pluripotent Stem Cells. ACS Nano, 2016, 10, 3342-3355.   | 14.6 | 53        |
| 4  | Sinusoidal wavy surfaces for curvature-guided migration of TÂlymphocytes. Biomaterials, 2015, 51,<br>151-160.   | 11.4 | 52        |
| 5  | Ultra-thin, aligned, free-standing nanofiber membranes to recapitulate multi-layered blood<br>vessel/tissue interface for leukocyte infiltration study. Biomaterials, 2018, 169, 22-34.   | 11.4 | 39        |
| 6  | A collagen gel-coated, aligned nanofiber membrane for enhanced endothelial barrier function.<br>Scientific Reports, 2019, 9, 14915.   | 3.3  | 39        |
| 7  | Direct fabrication of spatially patterned or aligned electrospun nanofiber mats on dielectric polymer<br>surfaces. Chemical Engineering Journal, 2018, 335, 712-719.  | 12.7 | 38        |
| 8  | Bulk poly( <i>N</i> -isopropylacrylamide) (PNIPAAm) thermoresponsive cell culture platform: toward a new horizon in cell sheet engineering. Biomaterials Science, 2019, 7, 2277-2287.   | 5.4  | 38        |
| 9  | One-Step Microfluidic Synthesis of Janus Microhydrogels with Anisotropic Thermo-Responsive<br>Behavior and Organophilic/Hydrophilic Loading Capability. Langmuir, 2013, 29, 15137-15141.  | 3.5  | 36        |
| 10 | Hydrogel-Assisted Electrospinning for Fabrication of a 3D Complex Tailored Nanofiber<br>Macrostructure. ACS Applied Materials & Interfaces, 2020, 12, 51212-51224.  | 8.0  | 36        |
| 11 | Role of Grounded Liquid Collectors in Precise Patterning of Electrospun Nanofiber Mats. Langmuir,<br>2018, 34, 284-290.   | 3.5  | 32        |
| 12 | Enhanced osteogenic fate and function of MC3T3-E1 cells on nanoengineered polystyrene surfaces with nanopillar and nanopore arrays. Biofabrication, 2013, 5, 025007.  | 7.1  | 30        |
| 13 | Massâ€producible Nanoâ€featured Polystyrene Surfaces for Regulating the Differentiation of Human<br>Adiposeâ€derived Stem Cells. Macromolecular Bioscience, 2012, 12, 1480-1489.  | 4.1  | 29        |
| 14 | Muscle-derived extracellular matrix on sinusoidal wavy surfaces synergistically promotes myogenic differentiation and maturation. Journal of Materials Chemistry B, 2018, 6, 5530-5539.   | 5.8  | 28        |
| 15 | Compressed collagen intermixed with cornea-derived decellularized extracellular matrix providing<br>mechanical and biochemical niches for corneal stroma analogue. Materials Science and Engineering C,<br>2019, 103, 109837.       | 7.3  | 23        |
| 16 | Collagen immobilization on ultra-thin nanofiber membrane to promote <i>in vitro</i> endothelial monolayer formation. Journal of Tissue Engineering, 2019, 10, 204173141988783.  | 5.5  | 22        |
| 17 | Micropattern array with gradient size (µPACS) plastic surfaces fabricated by PDMS<br>(polydimethylsiloxane) mold-based hot embossing technique for investigation of cell–surface<br>interaction. Biofabrication, 2012, 4, 045006.   | 7.1  | 21        |
| 18 | Constrained Adherable Area of Nanotopographic Surfaces Promotes Cell Migration through the<br>Regulation of Focal Adhesion via Focal Adhesion Kinase/Rac1 Activation. ACS Applied Materials &<br>Interfaces, 2018, 10, 14331-14341. | 8.0  | 21        |

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| 19 | Extremely high and elongated power output from a mechanical mediator-assisted triboelectric nanogenerator driven by the biomechanical energy. Nano Energy, 2019, 56, 851-858.  | 16.0 | 21        |
| 20 | Electrolyte solution-assisted electrospray deposition for direct coating and patterning of polymeric nanoparticles on non-conductive surfaces. Chemical Engineering Journal, 2020, 379, 122318.  | 12.7 | 21        |
| 21 | Nanoengineered Polystyrene Surfaces with Nanopore Array Pattern Alters Cytoskeleton Organization<br>and Enhances Induction of Neural Differentiation of Human Adipose-Derived Stem Cells. Tissue<br>Engineering - Part A, 2015, 21, 2115-2124. | 3.1  | 19        |
| 22 | Reconstruction of in vivo-like in vitro model: Enabling technologies of microfluidic systems for dynamic biochemical/mechanical stimuli. Microelectronic Engineering, 2019, 203-204, 6-24.   | 2.4  | 19        |
| 23 | Versatile Fabrication of Size- and Shape-Controllable Nanofibrous Concave Microwells for Cell<br>Spheroid Formation. ACS Applied Materials & Interfaces, 2018, 10, 37878-37885.  | 8.0  | 18        |
| 24 | Development of an in vitro 3D choroidal neovascularization model using chemically induced hypoxia<br>through an ultra-thin, free-standing nanofiber membrane. Materials Science and Engineering C, 2019,<br>104, 109964.                       | 7.3  | 18        |
| 25 | Nano Petri dishes: a new polystyrene platform for studying cell-nanoengineered surface interactions.<br>Journal of Micromechanics and Microengineering, 2014, 24, 055002.  | 2.6  | 17        |
| 26 | Investigation of effective shear stress on endothelial differentiation of human adipose-derived stem cells with microfluidic screening device. Microelectronic Engineering, 2017, 174, 24-27.  | 2.4  | 17        |
| 27 | Microfluidic-Assisted Fabrication of Flexible and Location Traceable Organo-Motor. IEEE Transactions on Nanobioscience, 2015, 14, 298-304.   | 3.3  | 16        |
| 28 | A simple fabrication process for stepwise gradient wrinkle pattern with spatially-controlled<br>wavelength based on sequential oxygen plasma treatment. Microelectronic Engineering, 2017, 176,<br>101-105.                                    | 2.4  | 16        |
| 29 | Decellularized corneal lenticule embedded compressed collagen: toward a suturable collagenous construct for limbal reconstruction. Biofabrication, 2018, 10, 045001.   | 7.1  | 14        |
| 30 | Thin and stretchable extracellular matrix (ECM) membrane reinforced by nanofiber scaffolds for developing in vitro barrier models. Biofabrication, 2022, 14, 025010.   | 7.1  | 14        |
| 31 | One-step fabrication of a tunable nanofibrous well insert via electrolyte-assisted electrospinning.<br>RSC Advances, 2017, 7, 38300-38306.   | 3.6  | 13        |
| 32 | Surface-tailored graphene channels. Npj 2D Materials and Applications, 2021, 5, .  | 7.9  | 12        |
| 33 | Metal–Electrolyte Solution Dualâ€Mode Electrospinning Process for In Situ Fabrication of Electrospun<br>Bilayer Membrane. Advanced Materials Interfaces, 2020, 7, 2000571.   | 3.7  | 10        |
| 34 | Rapid harvesting of stem cell sheets by thermoresponsive bulk poly( <i>N</i> -isopropylacrylamide)<br>(PNIPAAm) nanotopography. Biomaterials Science, 2020, 8, 5260-5270.  | 5.4  | 10        |
| 35 | Improved chondrogenic performance with protective tracheal design of Chitosan membrane surrounding 3D-printed trachea. Scientific Reports, 2021, 11, 9258.   | 3.3  | 10        |
| 36 | Facile Fabrication of Electrospun Nanofiber Membrane-Integrated PDMS Microfluidic Chip via Silver<br>Nanowires-Uncured PDMS Adhesive Layer. ACS Macro Letters, 2021, 10, 965-970.  | 4.8  | 10        |

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| 37 | Multiplex recreation of human intestinal morphogenesis on a multi-well insert platform by basolateral convective flow. Lab on A Chip, 2021, 21, 3316-3327.  | 6.0              | 10             |
| 38 | A capillary-based preconcentration device by using Ion Concentration Polarization through cation permselective membrane coating. International Journal of Precision Engineering and Manufacturing, 2015, 16, 1467-1471.               | 2.2              | 8              |
| 39 | A programmable powerful and ultra-fast water-driven soft actuator inspired by the mutable collagenous tissue of the sea cucumber. Journal of Materials Chemistry A, 2021, 9, 15937-15947.   | 10.3             | 8              |
| 40 | Ultra-stiff compressed collagen for corneal perforation patch graft realized by in situ photochemical crosslinking. Biofabrication, 2020, 12, 045030.   | 7.1              | 8              |
| 41 | Grayscale maskâ€assisted photochemical crosslinking for a dense collagen construct with stiffness<br>gradient. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 1000-1009.                          | 3.4              | 7              |
| 42 | Direct Fabrication of Freestanding and Patterned Nanoporous Junctions in a 3D Microâ€Nanofluidic<br>Device for Ionâ€Selective Transport. Small, 2020, 16, 2000998.  | 10.0             | 7              |
| 43 | Physically microstriped-nanoengineered polystyrene surface (PMS-NPS) for regulating cell<br>attachment and alignment fabricated by nano-injection molding. Microelectronic Engineering, 2016,<br>158, 11-15.                          | 2.4              | 6              |
| 44 | A deep and permeable nanofibrous oval-shaped microwell array for the stable formation of viable and functional spheroids. Biofabrication, 2021, 13, 035050.   | 7.1              | 6              |
| 45 | Microfluidic synthesis of thermo-responsive poly( <i>N</i> -isopropylacrylamide)–poly(ethylene) Tj ETQq1 1 0.784<br>Microengineering, 2014, 24, 085001.   | 4314 rgBT<br>2.6 | /Overlock<br>5 |
| 46 | Stabilizing Coacervate by Microfluidic Engulfment Induced by Controlled Interfacial Energy.<br>Biomacromolecules, 2020, 21, 930-938.  | 5.4              | 5              |
| 47 | Arterial Internal Elastic Lamina-Inspired Membrane for Providing Biochemical and Structural Cues in<br>Developing Artery-on-a-Chip. ACS Macro Letters, 2021, 10, 1398-1403.   | 4.8              | 5              |
| 48 | Perichondrium-inspired permeable nanofibrous tube well promoting differentiation of hiPSC-derived pellet toward hyaline-like cartilage pellet. Biofabrication, 2021, 13, 045015.  | 7.1              | 4              |
| 49 | Robust Topographical Micro-Patterning of Nanofibrillar Collagen Gel by In Situ Photochemical<br>Crosslinking-Assisted Collagen Embossing. Nanomaterials, 2020, 10, 2574.  | 4.1              | 4              |
| 50 | Promoted migration of fibroblast cells on low aspect ratio isotropic nanopore surface by reduced maturation of focal adhesion at peripheral region. Colloids and Surfaces B: Biointerfaces, 2020, 195, 111229.                        | 5.0              | 3              |
| 51 | Enhanced Differentiation Capacity and Transplantation Efficacy of Insulin-Producing Cell Clusters<br>from Human iPSCs Using Permeable Nanofibrous Microwell-Arrayed Membrane for Diabetes Treatment.<br>Pharmaceutics, 2022, 14, 400. | 4.5              | 3              |
| 52 | Investigation of Effects of Electrospinning Parameters on Transcription Quality of Nanofibrous<br>Bifurcatedâ€īubular Scaffold. Macromolecular Materials and Engineering, 2022, 307, .  | 3.6              | 3              |
| 53 | Synthesis of Poly( <em>N</em> -isopropylacrylamide) Janus Microhydrogels for Anisotropic<br>Thermo-responsiveness and Organophilic/Hydrophilic Loading Capability. Journal of Visualized<br>Experiments, 2016, , 52813.               | 0.3              | 2              |
| 54 | Dual-mode reconfigurable focusing using the interface of aqueous and dielectric liquids. Lab on A Chip, 2017, 17, 4031-4039.  | 6.0              | 2              |

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| 55 | Micro/Nano Dualâ€Scale Crossed Sinusoidal Wavy Patterns for Synergistic Promotion of Proliferation<br>and Endothelial Differentiation of Human Adiposeâ€Derived Stem Cells. Advanced Materials Interfaces,<br>2020, 7, 1901983. | 3.7 | 2         |
| 56 | Multi-scale Fabrication Techniques of Collagen Hydrogel for Developing Physiological 3D In vitro<br>Barrier Model. International Journal of Precision Engineering and Manufacturing, 2022, 23, 227-254.                         | 2.2 | 2         |
| 57 | Aquatic flower-inspired cell culture platform with simplified medium exchange process for facilitating cell-surface interaction studies. Biomedical Microdevices, 2016, 18, 3.  | 2.8 | 1         |
| 58 | Electrospun random/aligned hybrid nanofiber mat for development of multi-layered cardiac muscle patch. , 2018, , .  |     | 1         |