

# Han Seon-Jin

## List of Publications by Year in descending order

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89

papers

2,343

citations

279487

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223531

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93

all docs

93

docs citations

93

times ranked

3245

citing authors

#	ARTICLE	IF	CITATIONS
1	A serpentine laminating micromixer combining splitting/recombination and advection. Lab on A Chip, 2005, 5, 739.	3.1	226
2	Assembly of Advanced Materials into 3D Functional Structures by Methods Inspired by Origami and Kirigami: A Review. Advanced Materials Interfaces, 2018, 5, 1800284.	1.9	195
3	Spontaneous occurrence of liquid-solid contact electrification in nature: Toward a robust triboelectric nanogenerator inspired by the natural lotus leaf. Nano Energy, 2017, 36, 250-259.	8.2	159
4	Disposable integrated microfluidic biochip for blood typing by plastic microinjection moulding. Lab on A Chip, 2006, 6, 794.	3.1	149
5	Biomimetic anti-reflective triboelectric nanogenerator for concurrent harvesting of solar and raindrop energies. Nano Energy, 2019, 57, 424-431.	8.2	127
6	Recent advances in engineering microparticles and their nascent utilization in biomedical delivery and diagnostic applications. Lab on A Chip, 2017, 17, 591-613.	3.1	107
7	Energy harvesting model of moving water inside a tubular system and its application of a stick-type compact triboelectric nanogenerator. Nano Research, 2015, 8, 2481-2491.	5.8	94
8	Electrolyte-Assisted Electrospinning for a Self-Assembled, Free-Standing Nanofiber Membrane on a Curved Surface. Advanced Materials, 2015, 27, 1682-1687.	11.1	70
9	Replication of high-aspect-ratio nanopillar array for biomimetic gecko foot-hair prototype by UV nano embossing with anodic aluminum oxide mold. Microsystem Technologies, 2007, 13, 601-606.	1.2	66
10	One-Step Fabrication of Transparent and Flexible Nanotopographical-Triboelectric Nanogenerators via Thermal Nanoimprinting of Thermoplastic Fluoropolymers. Advanced Materials, 2015, 27, 7386-7394.	11.1	66
11	Nanotopography Promotes Pancreatic Differentiation of Human Embryonic Stem Cells and Induced Pluripotent Stem Cells. ACS Nano, 2016, 10, 3342-3355.	7.3	53
12	Sinusoidal wavy surfaces for curvature-guided migration of T lymphocytes. Biomaterials, 2015, 51, 151-160.	5.7	52
13	Curved Microneedle Array-Based sEMG Electrode for Robust Long-Term Measurements and High Selectivity. Sensors, 2015, 15, 16265-16280.	2.1	48
14	A centrifugal force-based serpentine micromixer (CSM) on a plastic lab-on-a-disk for biochemical assays. Microfluidics and Nanofluidics, 2013, 15, 87-98.	1.0	46
15	Robust hydrophobic surfaces with various micropillar arrays. Journal of Micromechanics and Microengineering, 2010, 20, 025028.	1.5	40
16	Ultra-thin, aligned, free-standing nanofiber membranes to recapitulate multi-layered blood vessel/tissue interface for leukocyte infiltration study. Biomaterials, 2018, 169, 22-34.	5.7	39
17	A Spherical Hybrid Triboelectric Nanogenerator for Enhanced Water Wave Energy Harvesting. Micromachines, 2018, 9, 598.	1.4	39
18	A collagen gel-coated, aligned nanofiber membrane for enhanced endothelial barrier function. Scientific Reports, 2019, 9, 14915.	1.6	39

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19	Direct fabrication of spatially patterned or aligned electrospun nanofiber mats on dielectric polymer surfaces. Chemical Engineering Journal, 2018, 335, 712-719.	6.6	38
20	Hydrogel-Assisted Electrospinning for Fabrication of a 3D Complex Tailored Nanofiber Macrostructure. ACS Applied Materials & Interfaces, 2020, 12, 51212-51224.	4.0	36
21	Role of Grounded Liquid Collectors in Precise Patterning of Electrospun Nanofiber Mats. Langmuir, 2018, 34, 284-290.	1.6	32
22	Replications and analysis of microlens array fabricated by a modified LIGA process. Polymer Engineering and Science, 2006, 46, 416-425.	1.5	30
23	A smart pipet tip: Triboelectricity and thermoelectricity assisted in situ evaluation of electrolyte concentration. Nano Energy, 2017, 38, 419-427.	8.2	30
24	Compressed collagen intermixed with cornea-derived decellularized extracellular matrix providing mechanical and biochemical niches for corneal stroma analogue. Materials Science and Engineering C, 2019, 103, 109837.	3.8	23
25	Collagen immobilization on ultra-thin nanofiber membrane to promote <i>in vitro</i> endothelial monolayer formation. Journal of Tissue Engineering, 2019, 10, 204173141988783.	2.3	22
26	Design and numerical simulation of complex flow generation in a microchannel by magnetohydrodynamic (MHD) actuation. International Journal of Precision Engineering and Manufacturing, 2014, 15, 463-470.	1.1	21
27	Constrained Adherable Area of Nanotopographic Surfaces Promotes Cell Migration through the Regulation of Focal Adhesion via Focal Adhesion Kinase/Rac1 Activation. ACS Applied Materials & Interfaces, 2018, 10, 14331-14341.	4.0	21
28	Increased Interfacial Area between Dielectric Layer and Electrode of Triboelectric Nanogenerator toward Robustness and Boosted Energy Output. Nanomaterials, 2019, 9, 71.	1.9	21
29	Extremely high and elongated power output from a mechanical mediator-assisted triboelectric nanogenerator driven by the biomechanical energy. Nano Energy, 2019, 56, 851-858.	8.2	21
30	Electrolyte solution-assisted electrospray deposition for direct coating and patterning of polymeric nanoparticles on non-conductive surfaces. Chemical Engineering Journal, 2020, 379, 122318.	6.6	21
31	Modeling, analysis and design of centrifugal force-driven transient filling flow into a circular microchannel. Microfluidics and Nanofluidics, 2006, 2, 125-140.	1.0	20
32	UV nano embossing for polymer nano structures with non-transparent mold insert. Microsystem Technologies, 2007, 13, 593-599.	1.2	20
33	Nanoengineered Polystyrene Surfaces with Nanopore Array Pattern Alters Cytoskeleton Organization and Enhances Induction of Neural Differentiation of Human Adipose-Derived Stem Cells. Tissue Engineering - Part A, 2015, 21, 2115-2124.	1.6	19
34	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.	1.1	19
35	Versatile Fabrication of Size- and Shape-Controllable Nanofibrous Concave Microwells for Cell Spheroid Formation. ACS Applied Materials & Interfaces, 2018, 10, 37878-37885.	4.0	18
36	Development of an in vitro 3D choroidal neovascularization model using chemically induced hypoxia through an ultra-thin, free-standing nanofiber membrane. Materials Science and Engineering C, 2019, 104, 109964.	3.8	18

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37	Cell density-dependent differential proliferation of neural stem cells on omnidirectional nanopore-arrayed surface. <i>Scientific Reports</i> , 2017, 7, 13077.	1.6	16
38	Decellularized corneal lenticule embedded compressed collagen: toward a suturable collagenous construct for limbal reconstruction. <i>Biofabrication</i> , 2018, 10, 045001.	3.7	14
39	Thin and stretchable extracellular matrix (ECM) membrane reinforced by nanofiber scaffolds for developing in vitro barrier models. <i>Biofabrication</i> , 2022, 14, 025010.	3.7	14
40	One-step fabrication of a tunable nanofibrous well insert via electrolyte-assisted electrospinning. <i>RSC Advances</i> , 2017, 7, 38300-38306.	1.7	13
41	Wireless sEMG System with a Microneedle-Based High-Density Electrode Array on a Flexible Substrate. <i>Sensors</i> , 2018, 18, 92.	2.1	13
42	Human kidney organoids model the tacrolimus nephrotoxicity and elucidate the role of autophagy. <i>Korean Journal of Internal Medicine</i> , 2021, 36, 1420-1436.	0.7	13
43	Surface-tailored graphene channels. <i>Npj 2D Materials and Applications</i> , 2021, 5, .	3.9	12
44	Modeling, analysis and design of centrifugal force driven transient filling flow into rectangular microchannel. <i>Microsystem Technologies</i> , 2006, 12, 822-838.	1.2	10
45	Metal-“Electrolyte Solution Dual-Mode Electrospinning Process for In Situ Fabrication of Electrospun Bilayer Membrane. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000571.	1.9	10
46	Rapid harvesting of stem cell sheets by thermoresponsive bulk poly( <i>N</i> -isopropylacrylamide) (PNIPAAm) nanotopography. <i>Biomaterials Science</i> , 2020, 8, 5260-5270.	2.6	10
47	Improved chondrogenic performance with protective tracheal design of Chitosan membrane surrounding 3D-printed trachea. <i>Scientific Reports</i> , 2021, 11, 9258.	1.6	10
48	Facile Fabrication of Electrospun Nanofiber Membrane-Integrated PDMS Microfluidic Chip via Silver Nanowires-Uncured PDMS Adhesive Layer. <i>ACS Macro Letters</i> , 2021, 10, 965-970.	2.3	10
49	A Simple Approach to Characterize Gas-Aqueous Liquid Two-phase Flow Configuration Based on Discrete Solid-Liquid Contact Electrification. <i>Scientific Reports</i> , 2015, 5, 15172.	1.6	8
50	A capillary-based preconcentration device by using Ion Concentration Polarization through cation permselective membrane coating. <i>International Journal of Precision Engineering and Manufacturing</i> , 2015, 16, 1467-1471.	1.1	8
51	Capacitive Control of Spontaneously Induced Electrical Charge of Droplet by Electric Field-Assisted Pipetting. <i>Nano-Micro Letters</i> , 2015, 7, 341-346.	14.4	8
52	Injection molded plastic lens for relay lens system and optical imaging probe. <i>International Journal of Precision Engineering and Manufacturing</i> , 2015, 16, 1801-1808.	1.1	8
53	Arrangement optimization of water-driven triboelectric nanogenerators considering capillary phenomenon between hydrophobic surfaces. <i>Scientific Reports</i> , 2020, 10, 1126.	1.6	8
54	A programmable powerful and ultra-fast water-driven soft actuator inspired by the mutable collagenous tissue of the sea cucumber. <i>Journal of Materials Chemistry A</i> , 2021, 9, 15937-15947.	5.2	8

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55	Ultra-stiff compressed collagen for corneal perforation patch graft realized by in situ photochemical crosslinking. <i>Biofabrication</i> , 2020, 12, 045030.	3.7	8
56	Modulating wall shear stress gradient via equilateral triangular channel for <i>in situ</i> cellular adhesion assay. <i>Biomicrofluidics</i> , 2016, 10, 054119.	1.2	7
57	Grayscale mask-assisted photochemical crosslinking for a dense collagen construct with stiffness gradient. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2020, 108, 1000-1009.	1.6	7
58	Direct Fabrication of Freestanding and Patterned Nanoporous Junctions in a 3D Micro-Nanofluidic Device for Ion-Selective Transport. <i>Small</i> , 2020, 16, 2000998.	5.2	7
59	Centrifugal multiplexing fixed-volume dispenser on a plastic lab-on-a-disk for parallel biochemical single-end-point assays. <i>Biomicrofluidics</i> , 2015, 9, 014104.	1.2	6
60	Development of Contact Lens-Shaped Crosslinked Amniotic Membranes for Sutureless Fixation in the Treatment of Ocular Surface Diseases. <i>Translational Vision Science and Technology</i> , 2020, 9, 12.	1.1	6
61	A deep and permeable nanofibrous oval-shaped microwell array for the stable formation of viable and functional spheroids. <i>Biofabrication</i> , 2021, 13, 035050.	3.7	6
62	Application of co-culture technology of epithelial type cells and mesenchymal type cells using nanopatterned structures. <i>PLoS ONE</i> , 2020, 15, e0232899.	1.1	5
63	Arterial Internal Elastic Lamina-Inspired Membrane for Providing Biochemical and Structural Cues in Developing Artery-on-a-Chip. <i>ACS Macro Letters</i> , 2021, 10, 1398-1403.	2.3	5
64	Versatile graphene nanocomposite microheater patterning for various thermoplastic substrates based on capillary filling and transfer molding. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	4
65	Nanoimprinting: One-Step Fabrication of Transparent and Flexible Nanotopographical-Triboelectric Nanogenerators via Thermal Nanoimprinting of Thermoplastic Fluoropolymers ( <i>Adv. Mater.</i> 45/2015). <i>Advanced Materials</i> , 2015, 27, 7484-7484.	11.1	4
66	Perichondrium-inspired permeable nanofibrous tube well promoting differentiation of hiPSC-derived pellet toward hyaline-like cartilage pellet. <i>Biofabrication</i> , 2021, 13, 045015.	3.7	4
67	Robust Topographical Micro-Patterning of Nanofibrillar Collagen Gel by In Situ Photochemical Crosslinking-Assisted Collagen Embossing. <i>Nanomaterials</i> , 2020, 10, 2574.	1.9	4
68	Janus hydrogel particles and their aggregation behavior. <i>Macromolecular Research</i> , 2012, 20, 899-901.	1.0	3
69	An experimental investigation of mixing of carbon nanotube/polymer composite in a batch-type screw mixer. <i>Microsystem Technologies</i> , 2014, 20, 243-250.	1.2	3
70	Microneedle-based high-density surface EMG interface with high selectivity for finger movement recognition. , 2016, , .		3
71	Promoted migration of fibroblast cells on low aspect ratio isotropic nanopore surface by reduced maturation of focal adhesion at peripheral region. <i>Colloids and Surfaces B: Biointerfaces</i> , 2020, 195, 111229.	2.5	3
72	Enhanced Differentiation Capacity and Transplantation Efficacy of Insulin-Producing Cell Clusters from Human iPSCs Using Permeable Nanofibrous Microwell-Arrayed Membrane for Diabetes Treatment. <i>Pharmaceutics</i> , 2022, 14, 400.	2.0	3

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73	Investigation of Effects of Electrospinning Parameters on Transcription Quality of Nanofibrous Bifurcatedâ€Tubular Scaffold. Macromolecular Materials and Engineering, 2022, 307, .	1.7	3
74	Micro lens fabrication by the modified LIGA process and its modeling and analysis. , 0, , .		2
75	Synthesis of Poly(&lt;em>N&lt;/em>-isopropylacrylamide) Janus Microhydrogels for Anisotropic Thermo-responsiveness and Organophilic/Hydrophilic Loading Capability. Journal of Visualized Experiments, 2016, , 52813.	0.2	2
76	Micro/Nano Dualâ€Scale Crossed Sinusoidal Wavy Patterns for Synergistic Promotion of Proliferation and Endothelial Differentiation of Human Adiposeâ€Derived Stem Cells. Advanced Materials Interfaces, 2020, 7, 1901983.	1.9	2
77	Multi-scale Fabrication Techniques of Collagen Hydrogel for Developing Physiological 3D In vitro Barrier Model. International Journal of Precision Engineering and Manufacturing, 2022, 23, 227-254.	1.1	2
78	Barrier embedded chaotic micromixer. , 0, , .		1
79	Electrospinning: Electrolyteâ€Assisted Electrospinning for a Selfâ€Assembled, Freeâ€Standing Nanofiber Membrane on a Curved Surface (Adv. Mater. 10/2015). Advanced Materials, 2015, 27, 1638-1638.	11.1	1
80	Gradient shadow pattern reveals refractive index of liquid. Scientific Reports, 2016, 6, 28191.	1.6	1
81	Aquatic flower-inspired cell culture platform with simplified medium exchange process for facilitating cell-surface interaction studies. Biomedical Microdevices, 2016, 18, 3.	1.4	1
82	Electrospun random/aligned hybrid nanofiber mat for development of multi-layered cardiac muscle patch. , 2018, , .		1
83	Development of dense collagenous construct mimicking native corneal stroma based on collagen compression process. , 2018, , .		0
84	Electrospun Bilayer Membrane: Metalâ€Electrolyte Solution Dualâ€Mode Electrospinning Process for In Situ Fabrication of Electrospun Bilayer Membrane (Adv. Mater. Interfaces 20/2020). Advanced Materials Interfaces, 2020, 7, 2070115.	1.9	0
85	Ionâ€Selective Transport: Direct Fabrication of Freestanding and Patterned Nanoporous Junctions in a 3D Microâ€Nanofluidic Device for Ionâ€Selective Transport (Small 22/2020). Small, 2020, 16, 2070123.	5.2	0
86	Title is missing!. , 2020, 15, e0232899.		0
87	Title is missing!. , 2020, 15, e0232899.		0
88	Title is missing!. , 2020, 15, e0232899.		0
89	Title is missing!. , 2020, 15, e0232899.		0