

Hoon Eui Jeong

List of Publications by Year in descending order

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90
papers

4,181
citations

109321

35
h-index

114465

63
g-index

90
all docs

90
docs citations

90
times ranked

4601
citing authors

#	ARTICLE	IF	CITATIONS
1	A nontransferring dry adhesive with hierarchical polymer nanohairs. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 5639-5644.	7.1	479
2	25th Anniversary Article: Scalable Multiscale Patterned Structures Inspired by Nature: the Role of Hierarchy. Advanced Materials, 2014, 26, 675-700.	21.0	212
3	Nanohairs and nanotubes: Efficient structural elements for gecko-inspired artificial dry adhesives. Nano Today, 2009, 4, 335-346.	11.9	175
4	Nanoengineered Multiscale Hierarchical Structures with Tailored Wetting Properties. Langmuir, 2006, 22, 1640-1645.	3.5	160
5	Stooped Nanohairs: Geometry-Controllable, Unidirectional, Reversible, and Robust Gecko-like Dry Adhesive. Advanced Materials, 2009, 21, 2276-2281.	21.0	159
6	Multifunctional Smart Skin Adhesive Patches for Advanced Health Care. Advanced Healthcare Materials, 2018, 7, e1800275.	7.6	139
7	Stretchable, Adhesion-Tunable Dry Adhesive by Surface Wrinkling. Langmuir, 2010, 26, 2223-2226.	3.5	138
8	Stretched Polymer Nanohairs by Nanodrawing. Nano Letters, 2006, 6, 1508-1513.	9.1	122
9	Wettability of nanoengineered dual-roughness surfaces fabricated by UV-assisted capillary force lithography. Journal of Colloid and Interface Science, 2009, 339, 202-207.	9.4	105
10	Woven Kevlar Fiber/Polydimethylsiloxane/Reduced Graphene Oxide Composite-Based Personal Thermal Management with Freestanding Cu-Ni Core-Shell Nanowires. Nano Letters, 2018, 18, 6731-6739.	9.1	104
11	Fabrication of non-biofouling polyethylene glycol micro- and nanochannels by ultraviolet-assisted irreversible sealing. Lab on A Chip, 2006, 6, 1432.	6.0	103
12	Snake fang-inspired stamping patch for transdermal delivery of liquid formulations. Science Translational Medicine, 2019, 11, .	12.4	95
13	Bacterial Recognition of Silicon Nanowire Arrays. Nano Letters, 2013, 13, 2864-2869.	9.1	92
14	Ultra-Adaptable and Wearable Photonic Skin Based on a Shape-Memory, Responsive Cellulose Derivative. Advanced Functional Materials, 2019, 29, 1902720.	14.9	89
15	Tunable Multimodal Drop Bouncing Dynamics and Anti-Icing Performance of a Magnetically Responsive Hair Array. ACS Nano, 2018, 12, 10693-10702.	14.6	86
16	Wet-Responsive, Reconfigurable, and Biocompatible Hydrogel Adhesive Films for Transfer Printing of Nanomembranes. Advanced Functional Materials, 2018, 28, 1706498.	14.9	84
17	Bioinspired reversible hydrogel adhesives for wet and underwater surfaces. Journal of Materials Chemistry B, 2018, 6, 8064-8070.	5.8	81
18	Adhesion hysteresis of Janus nanopillars fabricated by nanomolding and oblique metal deposition. Nano Today, 2009, 4, 385-392.	11.9	80

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19	Multiscale patterned transplantable stem cell patches for bone tissue regeneration. <i>Biomaterials</i> , 2014, 35, 9058-9067.	11.4	77
20	Remote Manipulation of Droplets on a Flexible Magnetically Responsive Film. <i>Scientific Reports</i> , 2015, 5, 17843.	3.3	75
21	UV-assisted capillary force lithography for engineering biomimetic multiscale hierarchical structures: From lotus leaf to gecko foot hairs. <i>Nanoscale</i> , 2009, 1, 331.	5.6	74
22	Generation and Self-Replication of Monolithic, Dual-Scale Polymer Structures by Two-Step Capillary-Force Lithography. <i>Small</i> , 2008, 4, 1913-1918.	10.0	71
23	Anisotropic Adhesion Properties of Triangular-Tip-Shaped Micropillars. <i>Small</i> , 2011, 7, 2296-2300.	10.0	71
24	Replication of surfaces of natural leaves for enhanced micro-scale tribological property. <i>Materials Science and Engineering C</i> , 2007, 27, 875-879.	7.3	68
25	Hydrogel Nanospine Patch as a Flexible Anti-Pathogenic Scaffold for Regulating Stem Cell Behavior. <i>ACS Nano</i> , 2019, 13, 11181-11193.	14.6	56
26	Nano meets beetles from wing to tiptoe: Versatile tools for smart and reversible adhesions. <i>Nano Today</i> , 2012, 7, 496-513.	11.9	51
27	Continuous and Scalable Fabrication of Bioinspired Dry Adhesives via a Roll-to-Roll Process with Modulated Ultraviolet-Curable Resin. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 14590-14599.	8.0	51
28	Hybrid Architectures of Heterogeneous Carbon Nanotube Composite Microstructures Enable Multi-axial Strain Perception with High Sensitivity and Ultrabroad Sensing Range. <i>Small</i> , 2018, 14, e1803411.	10.0	51
29	Effect of leaning angle of gecko-inspired slanted polymer nanohairs on dry adhesion. <i>Applied Physics Letters</i> , 2010, 96, 043704.	3.3	50
30	Wall and ceiling climbing quadruped robot with superior water repellency manufactured using 3D printing (UNiclimb). <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2017, 4, 273-280.	4.9	50
31	Bio-inspired configurable multiscale extracellular matrix-like structures for functional alignment and guided orientation of cells. <i>Biomaterials</i> , 2015, 69, 158-164.	11.4	47
32	Simple and Reliable Fabrication of Bioinspired Mushroom-Shaped Micropillars with Precisely Controlled Tip Geometries. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 22671-22678.	8.0	44
33	High aspect-ratio polymer nanostructures by tailored capillarity and adhesive force. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2008, 131, 313-314, 359-364.	4.7	43
34	Lipid-Hydrogel-Nanostructure Hybrids as Robust Biofilm-Resistant Polymeric Materials. <i>ACS Macro Letters</i> , 2019, 8, 64-69.	4.8	39
35	Fabrication and analysis of enforced dry adhesives with core-shell micropillars. <i>Soft Matter</i> , 2013, 9, 1422-1427.	2.7	37
36	Flexible and Shape-Reconfigurable Hydrogel Interlocking Adhesives for High Adhesion in Wet Environments Based on Anisotropic Swelling of Hydrogel Microstructures. <i>ACS Macro Letters</i> , 2017, 6, 1325-1330.	4.8	37

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37	On the role of oxygen in fabricating microfluidic channels with ultraviolet curable materials. Lab on A Chip, 2008, 8, 1787.	6.0	34
38	Bio-inspired adhesive systems for next-generation green manufacturing. International Journal of Precision Engineering and Manufacturing - Green Technology, 2014, 1, 347-351.	4.9	34
39	Magneto-responsive photothermal composite cilia for active anti-icing and de-icing. Composites Science and Technology, 2022, 217, 109086.	7.8	31
40	Enhanced tribological properties of lotus leaf-like surfaces fabricated by capillary force lithography. Surface Engineering, 2007, 23, 161-164.	2.2	29
41	Capillary Kinetics of Water in Homogeneous, Hydrophilic Polymeric Micro- to Nanochannels. Small, 2007, 3, 778-782.	10.0	29
42	Bioinspired, High-Sensitivity Mechanical Sensors Realized with Hexagonal Microcolumnar Arrays Coated with Ultrasonic-Sprayed Single-Walled Carbon Nanotubes. ACS Applied Materials & Interfaces, 2020, 12, 18813-18822.	8.0	29
43	Low-Resistant Electrical and Robust Mechanical Contacts of Self-Attachable Flexible Transparent Electrodes with Patternable Circuits. Advanced Functional Materials, 2020, 30, 2000458.	14.9	28
44	Precise tip shape transformation of nanopillars for enhanced dry adhesion strength. Soft Matter, 2012, 8, 5375.	2.7	27
45	A miniaturized wall-climbing segment robot inspired by caterpillar locomotion. Bioinspiration and Biomimetics, 2017, 12, 046003.	2.9	26
46	Enhanced Thermal Transport across Self-Interfacing van der Waals Contacts in Flexible Thermal Devices. Advanced Functional Materials, 2021, 31, 2107023.	14.9	23
47	Artificial Slanted Nanocilia Array as a Mechanotransducer for Controlling Cell Polarity. ACS Nano, 2017, 11, 730-741.	14.6	22
48	Adhesion of bioinspired nanocomposite microstructure at high temperatures. Applied Surface Science, 2017, 413, 275-283.	6.1	20
49	Scalable fabrication of flexible transparent heaters comprising continuously created metallic micromesh patterns incorporated with biomimetic anti-reflection layers. International Journal of Precision Engineering and Manufacturing - Green Technology, 2017, 4, 177-181.	4.9	20
50	Graphene-Layered Eggshell Membrane as a Flexible and Functional Scaffold for Enhanced Proliferation and Differentiation of Stem Cells. ACS Applied Bio Materials, 2019, 2, 4242-4248.	4.6	18
51	Porous spongy FeCo _{1-x} P nanostructure and MXene infused self-powered flexible textile based personal thermoregulatory device. Nano Energy, 2021, 86, 106042.	16.0	18
52	Undulatory topographical waves for flow-induced foulant sweeping. Science Advances, 2019, 5, eaax8935.	10.3	17
53	A micropatterned elastomeric surface with enhanced frictional properties under wet conditions and its application. Soft Matter, 2017, 13, 8419-8425.	2.7	16
54	Fabrication of the piezoresistive sensor using the continuous laser-induced nanostructure growth for structural health monitoring. Carbon, 2019, 152, 376-387.	10.3	16

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55	Enhanced air stability of superhydrophobic surfaces with flexible overhangs of re-entrant structures. <i>Physics of Fluids</i> , 2021, 33, .	4.0	16
56	Cellulose acetate nanoneedle array covered with phosphorylcholine moiety as a biocompatible and sustainable antifouling material. <i>Cellulose</i> , 2019, 26, 8775-8788.	4.9	15
57	Synergistic effects of gelatin and nanotopographical patterns on biomedical PCL patches for enhanced mechanical and adhesion properties. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 114, 104167.	3.1	15
58	A Pressure-Insensitive Self-Attachable Flexible Strain Sensor with Bioinspired Adhesive and Active CNT Layers. <i>Sensors</i> , 2020, 20, 6965.	3.8	14
59	Fabrication of high aspect ratio nanostructures using capillary force lithography. <i>Korean Journal of Chemical Engineering</i> , 2006, 23, 678-682.	2.7	13
60	Highly durable and unidirectionally stooped polymeric nanohairs for gecko-like dry adhesive. <i>Nanotechnology</i> , 2015, 26, 415301.	2.6	13
61	Self-Assembled Artificial Nanocilia Actuators. <i>Advanced Materials</i> , 2022, 34, e2200185.	21.0	13
62	Fabrication of bioinspired dry adhesives by CNC machining and replica molding. <i>International Journal of Precision Engineering and Manufacturing</i> , 2017, 18, 1239-1244.	2.2	11
63	Applications of Bioinspired Reversible Dry and Wet Adhesives: A Review. <i>Frontiers in Mechanical Engineering</i> , 2021, 7, .	1.8	11
64	A biomimetic approach for effective reduction in micro-scale friction by direct replication of topography of natural water-repellent surfaces. <i>Journal of Mechanical Science and Technology</i> , 2007, 21, 624-629.	1.5	10
65	Partially Cured Photopolymer with Gradient Bingham Plastic Behaviors as a Versatile Deformable Material. <i>ACS Macro Letters</i> , 2017, 6, 561-565.	4.8	10
66	Continuous Tip Widening Technique for Roll-to-Roll Fabrication of Dry Adhesives. <i>Coatings</i> , 2018, 8, 349.	2.6	10
67	Shear-pressure multimodal sensor based on flexible cylindrical pillar array and flat structured carbon nanocomposites with simple fabrication process. <i>Composites Science and Technology</i> , 2019, 184, 107841.	7.8	10
68	Highly flexible and self-adaptive dry adhesive end-effectors for precision robotics. <i>Soft Matter</i> , 2019, 15, 5827-5834.	2.7	9
69	Dynamically actuating nanospine composites as a bioinspired antibiofilm material. <i>Composites Science and Technology</i> , 2022, 220, 109267.	7.8	9
70	Strong and Reversible Adhesion of Interlocked 3D-Microarchitectures. <i>Coatings</i> , 2019, 9, 48.	2.6	8
71	Enhanced Directional Adhesion Behavior of Mushroom-Shaped Microline Arrays. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2020, 7, 239-245.	4.9	8
72	On the thickness uniformity of micropatterns of hyaluronic acid in a soft lithographic molding method. <i>Journal of Applied Physics</i> , 2005, 97, 114701.	2.5	7

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73	Significant Adhesion Enhancement of Bioinspired Dry Adhesives by Simple Thermal Treatment. International Journal of Precision Engineering and Manufacturing - Green Technology, 2019, 6, 587-599.	4.9	6
74	Biofouling-resistant tubular fluidic devices with magneto-responsive dynamic walls. Soft Matter, 2021, 17, 1715-1723.	2.7	6
75	Colorimetric Sensor Based on Hydroxypropyl Cellulose for Wide Temperature Sensing Range. Sensors, 2022, 22, 886.	3.8	6
76	Efficiency of air-dried and freeze-dried alginate/xanthan beads in batch, recirculating and column adsorption processes. International Journal of Biological Macromolecules, 2022, 204, 345-355.	7.5	6
77	Adhesive Microstructures: Anisotropic Adhesion Properties of Triangular-Shape Shaped Micropillars (Small 16/2011). Small, 2011, 7, 2266-2266.	10.0	5
78	A Tough Polysaccharide-Based Hydrogel with an On-Demand Dissolution Feature for Chronic Wound Care through Light-Induced Ultrafast Degradation. ACS Applied Bio Materials, 2020, 3, 8338-8343.	4.6	5
79	Measurement of Viscosity of Confined Polymer Melt Using Capillary Kinetics. Nanoscale and Microscale Thermophysical Engineering, 2006, 10, 263-274.	2.6	4
80	Guided extracellular matrix formation from fibroblast cells cultured on bio-inspired configurable multiscale substrata. Data in Brief, 2015, 5, 203-207.	1.0	4
81	Extreme hydrophobicity and omniphilicity of high-aspect-ratio silicon structures. Modern Physics Letters B, 2015, 29, 1540009.	1.9	2
82	Self-adhesive polyurethane via selective photo-polymerization for biocompatible epidermal soft sensor and thermal heater. Applied Materials Today, 2022, 27, 101479.	4.3	2
83	Stimuli-Responsive Materials: Wet-Responsive, Reconfigurable, and Biocompatible Hydrogel Adhesive Films for Transfer Printing of Nanomembranes (Adv. Funct. Mater. 18/2018). Advanced Functional Materials, 2018, 28, 1870117.	14.9	1
84	Supported lipid bilayers microarrays onto a surface and inside microfluidic channels. , 2006, , .		0
85	Stretched Polymer Nanohairs by Tailored Capillarity and Adhesive Force. Materials Research Society Symposia Proceedings, 2006, 948, 1.	0.1	0
86	Electronic Skins: Hybrid Architectures of Heterogeneous Carbon Nanotube Composite Microstructures Enable Multiaxial Strain Perception with High Sensitivity and Ultrabroad Sensing Range (Small 52/2018). Small, 2018, 14, 1870253.	10.0	0
87	Wearable Devices: Ultra-Adaptable and Wearable Photonic Skin Based on a Shape-Memory, Responsive Cellulose Derivative (Adv. Funct. Mater. 34/2019). Advanced Functional Materials, 2019, 29, 1970237.	14.9	0
88	Multifunctional Smart Ball Sensor for Wireless Structural Health Monitoring in a Fire Situation. Sensors, 2020, 20, 4328.	3.8	0
89	Lithographic Fabrication of Polymer Structures for MEMS Tribology. , 2018, , 529-544.		0
90	Anti-Icing Technology based on Drop Bouncing Dynamics for the Prevention of Freezing of Electric Power Equipment. Journal of the Korean Society for Precision Engineering, 2020, 37, 917-928.	0.2	0