Taeyoon Lee

List of Publications by Citations

56 papers	3,005 citations	24 h-index	54 g-index
66 ext. papers	3,581 ext. citations	10.7 avg, IF	5.12 L-index

#	Paper	IF	Citations
56	Conductive fiber-based ultrasensitive textile pressure sensor for wearable electronics. *Advanced Materials*, **2015**, 27, 2433-9	24	746
55	Ag Nanowire Reinforced Highly Stretchable Conductive Fibers for Wearable Electronics. *Advanced Functional Materials*, **2015**, 25, 3114-3121	15.6	407
54	Highly Sensitive Pressure Sensor Based on Bioinspired Porous Structure for Real-Time Tactile Sensing. *Advanced Electronic Materials*, **2016**, 2, 1600356	6.4	163
53	Hysteresis behavior of electrical resistance in Pd thin films during the process of absorption and desorption of hydrogen gas. *International Journal of Hydrogen Energy*, **2010**, 35, 6984-6991	6.7	138
52	Highly Sensitive Multifilament Fiber Strain Sensors with Ultrabroad Sensing Range for Textile Electronics. *ACS Nano*, **2018**, 12, 4259-4268	16.7	136
51	Recent Advances in 1D Stretchable Electrodes and Devices for Textile and Wearable Electronics: Materials, Fabrications, and Applications. *Advanced Materials*, **2020**, 32, e1902532	24	111
50	Rough-Surface-Enabled Capacitive Pressure Sensors with 3D Touch Capability. *Small*, **2017**, 13, 1700368	11	95
49	Bio-Inspired Extreme Wetting Surfaces for Biomedical Applications. *Materials*, **2016**, 9,	3.5	86
48	Guided transport of water droplets on superhydrophobic-hydrophilic patterned Si nanowires. *ACS Applied Materials & Interfaces*, **2011**, 3, 4722-9	9.5	79
47	Triboelectric Nanogenerator Accelerates Highly Efficient Nonviral Direct Conversion and In Vivo Reprogramming of Fibroblasts to Functional Neuronal Cells. *Advanced Materials*, **2016**, 28, 7365-74	24	70
46	Switchable water-adhesive, superhydrophobic palladium-layered silicon nanowires potentiate the angiogenic efficacy of human stem cell spheroids. *Advanced Materials*, **2014**, 26, 7043-50	24	64
45	Single-Droplet Multiplex Bioassay on a Robust and Stretchable Extreme Wetting Substrate through Vacuum-Based Droplet Manipulation. *ACS Nano*, **2018**, 12, 932-941	16.7	62
44	Textile-Based Electronic Components for Energy Applications: Principles, Problems, and Perspective. *Nanomaterials*, **2015**, 5, 1493-1531	5.4	62
43	Graphene Oxide Hierarchical Patterns for the Derivation of Electrophysiologically Functional Neuron-like Cells from Human Neural Stem Cells. *ACS Applied Materials & Interfaces*, **2016**, 8, 17763-74	9.5	61
42	Gas-driven ultrafast reversible switching of super-hydrophobic adhesion on palladium-coated silicon nanowires. *Advanced Materials*, **2013**, 25, 4139-44	24	57
41	Path-programmable water droplet manipulations on an adhesion controlled superhydrophobic surface. *Scientific Reports*, **2015**, 5, 12326	4.9	56
40	Highly conductive and flexible fiber for textile electronics obtained by extremely low-temperature atomic layer deposition of Pt. *NPG Asia Materials*, **2016**, 8, e331-e331	10.3	41

39	Conductive Hierarchical Hairy Fibers for Highly Sensitive, Stretchable, and Water-Resistant Multimodal Gesture-Distinguishable Sensor, VR Applications. *Advanced Functional Materials*, **2019**, 29, 1905808	15.6	39
38	Highly Conductive Fiber with Waterproof and Self-Cleaning Properties for Textile Electronics. *ACS Applied Materials & Interfaces*, **2018**, 10, 36094-36101	9.5	37
37	Superhydrophobic, Transparent, and Stretchable 3D Hierarchical Wrinkled Film-Based Sensors for Wearable Applications. *Advanced Materials Technologies*, **2019**, 4, 1900230	6.8	33
36	Stimuli-responsive and on-chip nanomembrane micro-rolls for enhanced macroscopic visual hydrogen detection. *Science Advances*, **2018**, 4, eaap8203	14.3	32
35	A Droplet-Based High-Throughput SERS Platform on a Droplet-Guiding-Track-Engraved Superhydrophobic Substrate. *Small*, **2017**, 13, 1602865	11	31
34	Efficient Direct Reduction of Graphene Oxide by Silicon Substrate. *Scientific Reports*, **2015**, 5, 12306	4.9	30
33	Bioinspired Geometry-Switchable Janus Nanofibers for Eye-Readable H2 Sensors. *Advanced Functional Materials*, **2017**, 27, 1701618	15.6	28
32	Reversible Liquid Adhesion Switching of Superamphiphobic Pd-Decorated Ag Dendrites via Gas-Induced Structural Changes. *Chemistry of Materials*, **2015**, 27, 4964-4971	9.6	23
31	Continuous monitoring of deep-tissue haemodynamics with stretchable ultrasonic phased arrays. *Nature Biomedical Engineering*, **2021**, 5, 749-758	19	23
30	Ultrastretchable Helical Conductive Fibers Using Percolated Ag Nanoparticle Networks Encapsulated by Elastic Polymers with High Durability in Omnidirectional Deformations for Wearable Electronics. *Advanced Functional Materials*, **2020**, 30, 1910026	15.6	22
29	Reversible wettability control of silicon nanowire surfaces: From superhydrophilicity to superhydrophobicity. *Thin Solid Films*, **2013**, 527, 179-185	2.2	21
28	Ultrafast single-droplet bouncing actuator with electrostatic force on superhydrophobic electrodes. *RSC Advances*, **2016**, 6, 66729-66737	3.7	16
27	Enhanced Photoresponsivity of All-Inorganic (CsPbBr3) Perovskite Nanosheets Photodetector with Carbon Nanodots (CDs). *Electronics (Switzerland)*, **2019**, 8, 678	2.6	15
26	Self-Bondable and Stretchable Conductive Composite Fibers with Spatially Controlled Percolated Ag Nanoparticle Networks: Novel Integration Strategy for Wearable Electronics. *Advanced Functional Materials*, **2020**, 30, 2005447	15.6	15
25	Chemical and Physical Pathways for Fabricating Flexible Superamphiphobic Surfaces with High Transparency. *Coatings*, **2018**, 8, 47	2.9	14
24	Flatband voltage control in p-metal gate metal-oxide-semiconductor field effect transistor by insertion of TiO2 layer. *Applied Physics Letters*, **2010**, 96, 082905	3.4	14
23	A facile method for the selective decoration of graphene defects based on a galvanic displacement reaction. *NPG Asia Materials*, **2016**, 8, e262-e262	10.3	14
22	Coupled self-assembled monolayer for enhancement of Cu diffusion barrier and adhesion properties. *RSC Advances*, **2014**, 4, 60123-60130	3.7	13

21	Nonfluorinated Superomniphobic Surfaces through Shape-Tunable Mushroom-like Polymeric Micropillar Arrays. *ACS Applied Materials & Interfaces*, **2019**, 11, 5484-5491	9.5	13
20	Wrinkling evolution of a growing bubble: the wonders of petal-like patterns in amorphous silicon membranes. *Soft Matter*, **2010**, 6, 3249	3.6	12
19	Silicon nanomembrane phototransistor flipped with multifunctional sensors toward smart digital dust. *Science Advances*, **2020**, 6, eaaz6511	14.3	11
18	Highly Stable Surface-Enhanced Raman Spectroscopy Substrates Using Few-Layer Graphene on Silver Nanoparticles. *Journal of Nanomaterials*, **2015**, 2015, 1-7	3.2	11
17	Effect of the deposition temperature and a hydrogen post-annealing treatment on the structural, electrical, and optical properties of Ga-doped ZnO films. *Electronic Materials Letters*, **2009**, 5, 127-133	2.9	11
16	Facile method for the preparation of high-performance photodetectors with a GQDs/perovskite bilayer heterostructure. *Organic Electronics*, **2020**, 76, 105444	3.5	11
15	The impact of atomic layer deposited SiO2 passivation for high-k Ta1⊠ZrxO on the InP substrate. *Journal of Materials Chemistry C*, **2015**, 3, 10293-10301	7.1	10
14	Ultrahigh Sensitive Au-Doped Silicon Nanomembrane Based Wearable Sensor Arrays for Continuous Skin Temperature Monitoring with High Precision. *Advanced Materials*, **2021**, e2105865	24	10
13	Ultrasensitive and Stretchable Conductive Fibers Using Percolated Pd Nanoparticle Networks for Multisensing Wearable Electronics: Crack-Based Strain and H Sensors. *ACS Applied Materials & Interfaces*, **2020**, 12, 45243-45253	9.5	8
12	Electrostatically-induced trajectory switching system on a multi-inlet-multi-outlet superhydrophobic droplet guiding track. *RSC Advances*, **2015**, 5, 5754-5761	3.7	7
11	Stretchable Electronics: Recent Advances in 1D Stretchable Electrodes and Devices for Textile and Wearable Electronics: Materials, Fabrications, and Applications (Adv. Mater. 5/2020). *Advanced Materials*, **2020**, 32, 2070038	24	6
10	Electronic Drugs: Spatial and Temporal Medical Treatment of Human Diseases. *Advanced Materials*, **2021**, 33, e2005930	24	6
9	The effects of surface modification on the electrical properties of p□ + junction silicon nanowires grown by an aqueous electroless etching method. *Journal of Nanoparticle Research*, **2012**, 14, 1	2.3	4
8	Instant, multiscale dry transfer printing by atomic diffusion control at heterogeneous interfaces. *Science Advances*, **2021**, 7,	14.3	4
7	Counterbalanced Effect of Surface Trap and Auger Recombination on the Transverse Terahertz Carrier Dynamics in Silicon Nanowires. *IEEE Transactions on Terahertz Science and Technology*, **2015**, 5, 605-612	3.4	3
6	PE-ALD of Ge1⊠Sx amorphous chalcogenide alloys for OTS applications. *Journal of Materials Chemistry C*, **2021**, 9, 6006-6013	7.1	2
5	Pressure Sensors: Highly Sensitive Pressure Sensor Based on Bioinspired Porous Structure for Real-Time Tactile Sensing (Adv. Electron. Mater. 12/2016). *Advanced Electronic Materials*, **2016**, 2,	6.4	1
4	Increased aortic augmentation index is associated with reduced exercise capacity after heart transplantation. *Journal of Hypertension*, **2020**, 38, 1777-1785	1.9	1

3	Deterministic Multimodal Perturbation Enables Neuromorphic-Compatible Signal Multiplexing **2022**, 4, 102-110	1
2	Cerebral Oximetry: Ultrastretchable Helical Conductive Fibers Using Percolated Ag Nanoparticle Networks Encapsulated by Elastic Polymers with High Durability in Omnidirectional Deformations for Wearable Electronics (Adv. Funct. Mater. 29/2020). *Advanced Functional Materials*, **2020**, 30, 2070198	15.6
1	Spray Coating Technologies: Conductive Hierarchical Hairy Fibers for Highly Sensitive, Stretchable, and Water-Resistant Multimodal Gesture-Distinguishable Sensor, VR Applications (Adv. Funct. Mater. 50/2019). *Advanced Functional Materials*, **2019**, 29, 1970344	15.6