Taeyoon Lee

List of Publications by Year in descending order

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56 papers	4,224 citations	201658 27 h-index	123420 61 g-index
66 all docs	66 docs citations	66 times ranked	6119 citing authors

#	Article	IF	Citations
1	Conductive Fiberâ€Based Ultrasensitive Textile Pressure Sensor for Wearable Electronics. Advanced Materials, 2015, 27, 2433-2439.	21.0	929
2	Ag Nanowire Reinforced Highly Stretchable Conductive Fibers for Wearable Electronics. Advanced Functional Materials, 2015, 25, 3114-3121.	14.9	493
3	Highly Sensitive Pressure Sensor Based on Bioinspired Porous Structure for Realâ€Time Tactile Sensing. Advanced Electronic Materials, 2016, 2, 1600356.	5.1	264
4	Recent Advances in 1D Stretchable Electrodes and Devices for Textile and Wearable Electronics: Materials, Fabrications, and Applications. Advanced Materials, 2020, 32, e1902532.	21.0	219
5	Highly Sensitive Multifilament Fiber Strain Sensors with Ultrabroad Sensing Range for Textile Electronics. ACS Nano, 2018, 12, 4259-4268.	14.6	207
6	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.	7.1	170
7	Roughâ€Surfaceâ€Enabled Capacitive Pressure Sensors with 3D Touch Capability. Small, 2017, 13, 1700368.	10.0	142
8	Bio-Inspired Extreme Wetting Surfaces for Biomedical Applications. Materials, 2016, 9, 116.	2.9	110
9	Continuous monitoring of deep-tissue haemodynamics with stretchable ultrasonic phased arrays. Nature Biomedical Engineering, 2021, 5, 749-758.	22.5	100
10	Guided Transport of Water Droplets on Superhydrophobicâ€“Hydrophilic Patterned Si Nanowires. ACS Applied Materials & Interfaces, 2011, 3, 4722-4729.	8.0	91
11	Triboelectric Nanogenerator Accelerates Highly Efficient Nonviral Direct Conversion and In Vivo Reprogramming of Fibroblasts to Functional Neuronal Cells. Advanced Materials, 2016, 28, 7365-7374.	21.0	90
12	Single-Droplet Multiplex Bioassay on a Robust and Stretchable Extreme Wetting Substrate through Vacuum-Based Droplet Manipulation. ACS Nano, 2018, 12, 932-941.	14.6	82
13	Textile-Based Electronic Components for Energy Applications: Principles, Problems, and Perspective. Nanomaterials, 2015, 5, 1493-1531.	4.1	81
14	Graphene Oxide Hierarchical Patterns for the Derivation of Electrophysiologically Functional Neuron-like Cells from Human Neural Stem Cells. ACS Applied Materials & Interfaces, 2016, 8, 17763-17774.	8.0	81
15	Conductive Hierarchical Hairy Fibers for Highly Sensitive, Stretchable, and Waterâ€Resistant Multimodal Gestureâ€Distinguishable Sensor, VR Applications. Advanced Functional Materials, 2019, 29, 1905808.	14.9	78
16	Switchable Waterâ€Adhesive, Superhydrophobic Palladiumâ€Layered Silicon Nanowires Potentiate the Angiogenic Efficacy of Human Stem Cell Spheroids. Advanced Materials, 2014, 26, 7043-7050.	21.0	73
17	Ultrahigh Sensitive Auâ€Doped Silicon Nanomembrane Based Wearable Sensor Arrays for Continuous Skin Temperature Monitoring with High Precision. Advanced Materials, 2022, 34, e2105865.	21.0	69
18	Path-programmable water droplet manipulations on an adhesion controlled superhydrophobic surface. Scientific Reports, 2015, 5, 12326.	3.3	65

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19	Gasâ€Driven Ultrafast Reversible Switching of Superâ€hydrophobic Adhesion on Palladiumâ€Coated Silicon Nanowires. Advanced Materials, 2013, 25, 4139-4144.	21.0	61
20	Superhydrophobic, Transparent, and Stretchable 3D Hierarchical Wrinkled Filmâ€Based Sensors for Wearable Applications. Advanced Materials Technologies, 2019, 4, 1900230.	5.8	60
21	Highly Conductive Fiber with Waterproof and Self-Cleaning Properties for Textile Electronics. ACS Applied Materials & Interfaces, 2018, 10, 36094-36101.	8.0	53
22	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.	7.9	51
23	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.	14.9	47
24	Bioinspired Geometryâ€Switchable Janus Nanofibers for Eyeâ€Readable H₂ Sensors. Advanced Functional Materials, 2017, 27, 1701618.	14.9	43
25	Stimuli-responsive and on-chip nanomembrane micro-rolls for enhanced macroscopic visual hydrogen detection. Science Advances, 2018, 4, eaap8203.	10.3	43
26	A Dropletâ€Based Highâ€Throughput SERS Platform on a Dropletâ€Guidingâ€Trackâ€Engraved Superhydrophobic Substrate. Small, 2017, 13, 1602865.	10.0	38
27	Efficient Direct Reduction of Graphene Oxide by Silicon Substrate. Scientific Reports, 2015, 5, 12306.	3.3	32
28	Selfâ€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.	14.9	28
29	Reversible wettability control of silicon nanowire surfaces: From superhydrophilicity to superhydrophobicity. Thin Solid Films, 2013, 527, 179-185.	1.8	27
30	Reversible Liquid Adhesion Switching of Superamphiphobic Pd-Decorated Ag Dendrites via Gas-Induced Structural Changes. Chemistry of Materials, 2015, 27, 4964-4971.	6.7	27
31	Nonfluorinated Superomniphobic Surfaces through Shape-Tunable Mushroom-like Polymeric Micropillar Arrays. ACS Applied Materials & Interfaces, 2019, 11, 5484-5491.	8.0	26
32	Silicon nanomembrane phototransistor flipped with multifunctional sensors toward smart digital dust. Science Advances, 2020, 6, eaaz6511.	10.3	24
33	Coupled self-assembled monolayer for enhancement of Cu diffusion barrier and adhesion properties. RSC Advances, 2014, 4, 60123-60130.	3.6	22
34	Enhanced Photoresponsivity of All-Inorganic (CsPbBr3) Perovskite Nanosheets Photodetector with Carbon Nanodots (CDs). Electronics (Switzerland), 2019, 8, 678.	3.1	22
35	Instant, multiscale dry transfer printing by atomic diffusion control at heterogeneous interfaces. Science Advances, 2021, 7, .	10.3	22
36	Chemical and Physical Pathways for Fabricating Flexible Superamphiphobic Surfaces with High Transparency. Coatings, 2018, 8, 47.	2.6	21

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37	Facile method for the preparation of high-performance photodetectors with a GQDs/perovskite bilayer heterostructure. Organic Electronics, 2020, 76, 105444.	2.6	21
38	Ultrafast single-droplet bouncing actuator with electrostatic force on superhydrophobic electrodes. RSC Advances, 2016, 6, 66729-66737.	3.6	19
39	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.	2.2	16
40	Ultrasensitive and Stretchable Conductive Fibers Using Percolated Pd Nanoparticle Networks for Multisensing Wearable Electronics: Crack-Based Strain and H₂ Sensors. ACS Applied Materials & Interfaces, 2020, 12, 45243-45253.	8.0	16
41	A facile method for the selective decoration of graphene defects based on a galvanic displacement reaction. NPG Asia Materials, 2016, 8, e262-e262.	7.9	15
42	Flatband voltage control in p-metal gate metal-oxide-semiconductor field effect transistor by insertion of TiO2 layer. Applied Physics Letters, 2010, 96, .	3.3	14
43	Wrinkling evolution of a growing bubble: the wonders of petal-like patterns in amorphous silicon membranes. Soft Matter, 2010, 6, 3249.	2.7	14
44	Highly Stable Surface-Enhanced Raman Spectroscopy Substrates Using Few-Layer Graphene on Silver Nanoparticles. Journal of Nanomaterials, 2015, 2015, 1-7.	2.7	14
45	Electronic Drugs: Spatial and Temporal Medical Treatment of Human Diseases. Advanced Materials, 2021, 33, e2005930.	21.0	14
46	The impact of atomic layer deposited SiO₂passivation for high-k Ta_{1â^'x}Zr_xO on the InP substrate. Journal of Materials Chemistry C, 2015, 3, 10293-10301.	5.5	13
47	PE-ALD of Ge_{1â^'x}S_xamorphous chalcogenide alloys for OTS applications. Journal of Materials Chemistry C, 2021, 9, 6006-6013.	5.5	12
48	Electrostatically-induced trajectory switching system on a multi-inlet-multi-outlet superhydrophobic droplet guiding track. RSC Advances, 2015, 5, 5754-5761.	3.6	9
49	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.	21.0	9
50	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.	3.1	5
51	The effects of surface modification on the electrical properties of pâ€“n + junction silicon nanowires grown by an aqueous electroless etching method. Journal of Nanoparticle Research, 2012, 14, 1.	1.9	4
52	Deterministic Multimodal Perturbation Enables Neuromorphic-Compatible Signal Multiplexing. , 2022, 4, 102-110.		3
53	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, .	5.1	1
54	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.	14.9	1

#	Article	IF	Citations
55	Increased aortic augmentation index is associated with reduced exercise capacity after heart transplantation. Journal of Hypertension, 2020, 38, 1777-1785.	0.5	1
56	Spray Coating Technologies: Conductive Hierarchical Hairy Fibers for Highly Sensitive, Stretchable, and Waterâ€Resistant Multimodal Gestureâ€Distinguishable Sensor, VR Applications (Adv. Funct. Mater.) Tj ETQq0 0 0 rgBT /Overlock 1	14.9	0