Unyong Jeong

List of Publications by Year
in descending order

116 papers	8,825 citations	50276 46 h-index	42399 92 g-index
118 all docs	118 docs citations	118 times ranked	12087 citing authors

#	ARTICLE	IF	CITATIONS
1	Highly stretchable electric circuits from a composite material of silver nanoparticles and elastomeric fibres. Nature Nanotechnology, 2012, 7, 803-809.	31.5	782
2	Polymer hollow particles with controllable holes in their surfaces. Nature Materials, 2005, 4, 671-675.	27.5	524
3	A New Theranostic System Based on Gold Nanocages and Phase-Change Materials with Unique Features for Photoacoustic Imaging and Controlled Release. Journal of the American Chemical Society, 2011, 133, 4762-4765.	13.7	382
4	Artificial multimodal receptors based on ion relaxation dynamics. Science, 2020, 370, 961-965.	12.6	343
5	Emerging Applications of Phaseâ€Change Materials (PCMs): Teaching an Old Dog New Tricks. Angewandte Chemie - International Edition, 2014, 53, 3780-3795.	13.8	292
6	Design of conductive composite elastomers for stretchable electronics. Nano Today, 2014, 9, 244-260.	11.9	246
7	Conducting Polymer Dough for Deformable Electronics. Advanced Materials, 2016, 28, 4455-4461.	21.0	241
8	Chemical transformations of nanostructured materials. Nano Today, 2011, 6, 186-203.	11.9	230
9	Metabolizable Bi₂Se₃ Nanoplates: Biodistribution, Toxicity, and Uses for Cancer Radiation Therapy and Imaging. Advanced Functional Materials, 2014, 24, 1718-1729.	14.9	226
10	Chemical Transformations in Ultrathin Chalcogenide Nanowires. ACS Nano, 2010, 4, 2307-2319.	14.6	208
11	Material aspects of triboelectric energy generation and sensors. NPG Asia Materials, 2020, 12, .	7.9	200
12	Stretchable Eâ€Skin Apexcardiogram Sensor. Advanced Materials, 2016, 28, 6359-6364.	21.0	182
13	Assembled Monolayers of Hydrophilic Particles on Water Surfaces. ACS Nano, 2011, 5, 8600-8612.	14.6	166
14	Polythiophene Nanofibril Bundles Surfaceâ€Embedded in Elastomer: A Route to a Highly Stretchable Active Channel Layer. Advanced Materials, 2015, 27, 1255-1261.	21.0	166
15	Material Approaches to Stretchable Strain Sensors. ChemPhysChem, 2015, 16, 1155-1163.	2.1	163
16	Highly Stretchable Patterned Gold Electrodes Made of Au Nanosheets. Advanced Materials, 2013, 25, 2707-2712.	21.0	159
17	Highly Stretchable Polymer Transistors Consisting Entirely of Stretchable Device Components. Advanced Materials, 2014, 26, 3706-3711.	21.0	157
18	Ordered Zigzag Stripes of Polymer Gel/Metal Nanoparticle Composites for Highly Stretchable Conductive Electrodes. Advanced Materials, 2011, 23, 2946-2950.	21.0	156

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19	Quick, Controlled Synthesis of Ultrathin Bi₂Se₃ Nanodiscs and Nanosheets. Journal of the American Chemical Society, 2012, 134, 2872-2875.	13.7	154
20	Cation Exchange:Â A Simple and Versatile Route to Inorganic Colloidal Spheres with the Same Size but Different Compositions and Properties. Langmuir, 2007, 23, 2985-2992.	3.5	146
21	Effect of PEDOT Nanofibril Networks on the Conductivity, Flexibility, and Coatability of PEDOT:PSS Films. ACS Applied Materials & Interfaces, 2014, 6, 6954-6961.	8.0	140
22	Perovskite solar cells with an MoS₂ electron transport layer. Journal of Materials Chemistry A, 2019, 7, 7151-7158.	10.3	116
23	Self-Seeded Growth of Poly(3-hexylthiophene) (P3HT) Nanofibrils by a Cycle of Cooling and Heating in Solutions. Macromolecules, 2012, 45, 7504-7513.	4.8	115
24	Hydrogen-doped viscoplastic liquid metal microparticles for stretchable printed metal lines. Nature Materials, 2021, 20, 533-540.	27.5	111
25	Photonic Crystals with Thermally Switchable Stop Bands Fabricated from Se@Ag2Se Spherical Colloids. Angewandte Chemie - International Edition, 2005, 44, 3099-3103.	13.8	110
26	Chemical transformation: a powerful route to metal chalcogenide nanowires. Journal of Materials Chemistry, 2006, 16, 3893.	6.7	107
27	Force-assembled triboelectric nanogenerator with high-humidity-resistant electricity generation using hierarchical surface morphology. Nano Energy, 2016, 20, 283-293.	16.0	105
28	Adding a stretchable deep-trap interlayer for high-performance stretchable triboelectric nanogenerators. Nano Energy, 2018, 50, 192-200.	16.0	100
29	Recent Progress in Stretchable Batteries for Wearable Electronics. Batteries and Supercaps, 2019, 2, 181-199.	4.7	98
30	Highly Scalable Synthesis of MoS₂ Thin Films with Precise Thickness Control via Polymer-Assisted Deposition. Chemistry of Materials, 2017, 29, 5772-5776.	6.7	96
31	Quadruple ultrasound, photoacoustic, optical coherence, and fluorescence fusion imaging with a transparent ultrasound transducer. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	94
32	Microscale Polymer Bottles Corked with a Phaseâ€Change Material for Temperatureâ€Controlled Release. Angewandte Chemie - International Edition, 2013, 52, 10468-10471.	13.8	89
33	Quick, Largeâ€Area Assembly of a Singleâ€Crystal Monolayer of Spherical Particles by Unidirectional Rubbing. Advanced Materials, 2014, 26, 4633-4638.	21.0	89
34	Monodispersed Spherical Colloids of Se@CdSe:Â Synthesis and Use as Building Blocks in Fabricating Photonic Crystals. Nano Letters, 2005, 5, 937-942.	9.1	87
35	Eâ€Skin Tactile Sensor Matrix Pixelated by Positionâ€Registered Conductive Microparticles Creating Pressureâ€Sensitive Selectors. Advanced Functional Materials, 2018, 28, 1801858.	14.9	86
36	Synthesis of Multishell Nanoplates by Consecutive Epitaxial Growth of Bi₂Se₃ and Bi₂Te₃ Nanoplates and Enhanced Thermoelectric Properties. ACS Nano, 2015, 9, 6843-6853.	14.6	85

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37	Block Copolymer Elastomers for Stretchable Electronics. Accounts of Chemical Research, 2019, 52, 63-72.	15.6	85
38	Microscale Fish Bowls:â€‰ A New Class of Latex Particles with Hollow Interiors and Engineered Porous Structures in Their Surfaces. Langmuir, 2007, 23, 10968-10975.	3.5	81
39	Large-scale synthesis of single-crystal CdSe nanowires through a cation-exchange route. Chemical Physics Letters, 2005, 416, 246-250.	2.6	69
40	Hygroscopic Auxetic On-Skin Sensors for Easy-to-Handle Repeated Daily Use. ACS Applied Materials & Interfaces, 2018, 10, 40141-40148.	8.0	69
41	Solution-based synthesis of anisotropic metal chalcogenide nanocrystals and their applications. Journal of Materials Chemistry C, 2014, 2, 6222-6248.	5.5	66
42	Surfaceâ€Embedded Stretchable Electrodes by Direct Printing and their Uses to Fabricate Ultrathin Vibration Sensors and Circuits for 3D Structures. Advanced Materials, 2017, 29, 1702625.	21.0	63
43	Approaches to Stretchable Polymer Active Channels for Deformable Transistors. Macromolecules, 2016, 49, 433-444.	4.8	58
44	User-Customized, Multicolor, Transparent Electrochemical Displays Based on Oxidatively Tuned Electrochromic Ion Gels. ACS Applied Materials & Interfaces, 2019, 11, 45959-45968.	8.0	51
45	Lipids: Source of Static Electricity of Regenerative Natural Substances and Nondestructive Energy Harvesting. Advanced Materials, 2018, 30, e1804949.	21.0	48
46	Amorphous Se:â€‰ A New Platform for Synthesizing Superparamagnetic Colloids with Controllable Surfaces. Journal of the American Chemical Society, 2005, 127, 1098-1099.	13.7	47
47	Bi₂Se₃ nanoplates for contrast-enhanced photoacoustic imaging at 1064 nm. Nanoscale, 2018, 10, 20548-20558.	5.6	47
48	Synthesis, Transformation, and Utilization of Monodispersed Colloidal Spheres. Accounts of Chemical Research, 2019, 52, 3475-3487.	15.6	44
49	Interface Design for Stretchable Electronic Devices. Advanced Science, 2021, 8, 2004170.	11.2	44
50	Micropatterned Stretchable Circuit and Strain Sensor Fabricated by Lithography on an Electrospun Nanofiber Mat. ACS Applied Materials & Interfaces, 2013, 5, 8766-8771.	8.0	43
51	Synthesis of 2D Metal Chalcogenide Thin Films through the Process Involving Solutionâ€Phase Deposition. Advanced Materials, 2018, 30, e1707577.	21.0	43
52	Stretchable anisotropic conductive film (S-ACF) for electrical interfacing in high-resolution stretchable circuits. Science Advances, 2021, 7, .	10.3	43
53	Interfacing Liquid Metals with Stretchable Metal Conductors. ACS Applied Materials & Interfaces, 2015, 7, 7920-7926.	8.0	42
54	Structural Color Painting by Rubbing Particle Powder. Scientific Reports, 2015, 5, 8340.	3.3	41

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55	Oneâ€Step Solution Phase Growth of Transition Metal Dichalcogenide Thin Films Directly on Solid Substrates. Advanced Materials, 2017, 29, 1700291.	21.0	39
56	Nonstoichiometric Nucleation and Growth of Multicomponent Nanocrystals in Solution. Accounts of Chemical Research, 2014, 47, 2887-2893.	15.6	38
57	Standâ€Alone Intrinsically Stretchable Electronic Device Platform Powered by Stretchable Rechargeable Battery. Advanced Functional Materials, 2020, 30, 2003608.	14.9	36
58	Silver nanowire network embedded in polydimethylsiloxane as stretchable, transparent, and conductive substrates. Journal of Applied Polymer Science, 2016, 133, .	2.6	34
59	Electroâ€Photoluminescence Color Change for Deformable Visual Encryption. Advanced Materials, 2020, 32, e1907477.	21.0	34
60	Remarkable increase in triboelectrification by enhancing the conformable contact and adhesion energy with a film-covered pillar structure. Nano Energy, 2017, 34, 233-241.	16.0	33
61	Effect of ion migration in electro-generated chemiluminescence depending on the luminophore types and operating conditions. Chemical Science, 2018, 9, 2480-2488.	7.4	33
62	Transparent Flexible Nanoline Field-Effect Transistor Array with High Integration in a Large Area. ACS Nano, 2020, 14, 907-918.	14.6	33
63	Improved stability of transparent PEDOT:PSS/Ag nanowire hybrid electrodes by using non-ionic surfactants. Chemical Communications, 2017, 53, 8292-8295.	4.1	32
64	Stretchable triboelectric multimodal tactile interface simultaneously recognizing various dynamic body motions. Nano Energy, 2019, 56, 347-356.	16.0	32
65	Approaches to deformable physical sensors: Electronic versus iontronic. Materials Science and Engineering Reports, 2021, 146, 100640.	31.8	29
66	Fabrication of Foldable Metal Interconnections by Hybridizing with Amorphous Carbon Ultrathin Anisotropic Conductive Film. ACS Nano, 2019, 13, 7175-7184.	14.6	27
67	A Strainâ€Regulated, Refillable Elastic Patch for Controlled Release. Advanced Materials Interfaces, 2016, 3, 1500803.	3.7	26
68	Large-Area Accurate Position Registry of Microparticles on Flexible, Stretchable Substrates Using Elastomer Templates. ACS Applied Materials & Interfaces, 2016, 8, 28149-28158.	8.0	25
69	Synthesis of Atomically Thin Transition Metal Ditelluride Films by Rapid Chemical Transformation in Solution Phase. Chemistry of Materials, 2018, 30, 2463-2473.	6.7	25
70	2D Percolation Design with Conductive Microparticles for Lowâ€Strain Detection in a Stretchable Sensor. Advanced Functional Materials, 2020, 30, 1908514.	14.9	25
71	Dynamic tactility by position-encoded spike spectrum. Science Robotics, 2022, 7, eabl5761.	17.6	25
72	Metal Deposition on a Selfâ€Generated Microfibril Network to Fabricate Stretchable Tactile Sensors Providing Analog Position Information. Advanced Materials, 2018, 30, e1801408.	21.0	24

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73	Highly Deformable Transparent Au Film Electrodes and Their Uses in Deformable Displays. ACS Applied Materials & Interfaces, 2020, 12, 41969-41980.	8.0	23
74	Folding and Bending Planar Coils for Highly Precise Soft Angle Sensing. Advanced Materials Technologies, 2020, 5, 2000659.	5.8	22
75	Output voltage modulation in triboelectric nanogenerator by printed ion gel capacitors. Nano Energy, 2018, 54, 367-374.	16.0	21
76	Fully Elastic Conductive Films from Viscoelastic Composites. ACS Applied Materials & Interfaces, 2017, 9, 44096-44105.	8.0	20
77	Ag nanowire-based transparent stretchable tactile sensor recognizing strain directions and pressure. Nanotechnology, 2019, 30, 315502.	2.6	20
78	Microfluidic channels fabricated on mesoporous electrospun fiber mats: A facile route to microfluidic chips. Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 89-95.	2.1	18
79	Design of a Janusâ€Faced Electrode for Highly Stretchable Zincâ€“Silver Rechargeable Batteries. Advanced Functional Materials, 2020, 30, 2004137.	14.9	18
80	Microwave-assisted evolution of WO₃ and WS₂/WO₃ hierarchical nanotrees. Journal of Materials Chemistry A, 2020, 8, 9654-9660.	10.3	18
81	Balancing the Concentrations of Redox Species to Improve Electrochemiluminescence by Tailoring the Symmetry of the AC Voltage. ChemElectroChem, 2018, 5, 2836-2841.	3.4	17
82	Electroactive 1T-MoS₂ Fluoroelastomer Ink for Intrinsically Stretchable Solid-State In-Plane Supercapacitors. ACS Applied Materials & Interfaces, 2021, 13, 26870-26878.	8.0	17
83	Viable stretchable plasmonics based on unidirectional nanoprisms. Nanoscale, 2018, 10, 4105-4112.	5.6	16
84	Waterâ€Saturated Ion Gel for Humidityâ€Independent High Precision Epidermal Ionic Temperature Sensor. Advanced Science, 2022, 9, e2200687.	11.2	16
85	Liquid Metal Covered with Thermoplastic Conductive Composites for High Electrical Stability and Negligible Electromechanical Coupling at Large Strains. ACS Applied Materials & Interfaces, 2019, 11, 26204-26212.	8.0	15
86	Triboelectric UV patterning for wearable one-terminal tactile sensor array to perceive dynamic contact motions. Nano Energy, 2022, 98, 107320.	16.0	15
87	Microwave-assisted synthesis of group 5 transition metal dichalcogenide thin films. Journal of Materials Chemistry C, 2018, 6, 11303-11311.	5.5	14
88	Precise Tuning of Multiple Perovskite Photoluminescence by Volume-Controlled Printing of Perovskite Precursor Solution on Cellulose Paper. ACS Nano, 2022, 16, 2521-2534.	14.6	14
89	New Approaches to Produce Largeâ€Area Single Crystal Thin Films. Advanced Materials, 2023, 35, .	21.0	14
90	Boosting up the electrical performance of low-grade PEDOT:PSS by optimizing non-ionic surfactants. Nanoscale, 2017, 9, 16079-16085.	5.6	13

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91	Cut-and-Paste Transferrable Pressure Sensing Cartridge Films. Chemistry of Materials, 2018, 30, 6410-6419.	6.7	13
92	Surface Diffusion and Epitaxial Selfâ€Planarization for Waferâ€Scale Singleâ€Grain Metal Chalcogenide Thin Films. Advanced Materials, 2021, 33, e2102252.	21.0	13
93	Transparent Omniâ€Directional Stretchable Circuit Lines Made by a Junctionâ€Free Grid of Expandable Au Lines. Advanced Materials, 2021, 33, e2100299.	21.0	12
94	Largeâ€Area Epitaxial Film Growth of van der Waals Ferromagnetic Ternary Chalcogenides. Advanced Materials, 2021, 33, e2103609.	21.0	12
95	Airâ€Permeable Waterproofing Electrocardiogram Patch to Monitor Fullâ€Day Activities for Multiple Days. Advanced Healthcare Materials, 2022, 11, e2102703.	7.6	12
96	Enhanced Chemical Stability of Ag Nanowires by Slight Surface Modification with Pd. Advanced Materials Interfaces, 2018, 5, 1800250.	3.7	11
97	DC Voltage Modulation for Integrated Self-Charging Power Systems of Triboelectric Nanogenerators and Ion Gel/WO3 Supercapacitors. ACS Applied Electronic Materials, 2020, 2, 2550-2557.	4.3	11
98	Eventual Chemical Transformation of Metals and Chalcogens into Metal Chalcogenide Nanoplates through a Surface Nucleation-Detachment-Reorganization Mechanism. Chemistry of Materials, 2017, 29, 3219-3227.	6.7	10
99	Printed Stretchable Single-Nanofiber Interconnections for Individually-Addressable Highly-Integrated Transparent Stretchable Field Effect Transistor Array. Nano Letters, 2021, 21, 5819-5827.	9.1	10
100	Patterning Materials through Viscoelastic Flow and Phase Separation. Angewandte Chemie - International Edition, 2011, 50, 10977-10980.	13.8	9
101	Deformable Electronics: Conducting Polymer Dough for Deformable Electronics (Adv. Mater. 22/2016). Advanced Materials, 2016, 28, 4564-4564.	21.0	9
102	Polymerâ€Assisted Deposition of Alâ€Doped HfO 2 Thin Film with Excellent Dielectric Properties. Advanced Materials Interfaces, 2019, 6, 1900588.	3.7	9
103	2D Colloidal Array of Glucoseâ€Conjugative Conductive Microparticles for a Pressureâ€Mediated Chemiresistive Sensor Platform. Advanced Functional Materials, 2020, 30, 2000431.	14.9	9
104	The effect of Se doping on the growth of Te nanorods. CrystEngComm, 2015, 17, 5734-5743.	2.6	8
105	Microparticleâ€Based Soft Electronic Devices: Toward Oneâ€Particle/Oneâ€Pixel. Advanced Functional Materials, 2020, 30, 1901810.	14.9	8
106	Conductive magnetic-patchy colloidal microparticles for a high performance pressure sensor. Chemical Communications, 2016, 52, 12334-12337.	4.1	7
107	Au-Assisted catalytic growth of Si₂Te₃ plates. Journal of Materials Chemistry C, 2019, 7, 10561-10566.	5.5	6
108	High-performance transparent conductive pyrolyzed carbon (Py-C) ultrathin film. Journal of Materials Chemistry C, 2020, 8, 9243-9251.	5.5	6

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109	Omnidirectional Tactile Profiling Using a Deformable Pressure Sensor Array Based on Localized Piezoresistivity. Advanced Materials Technologies, 2022, 7, 2100688.	5.8	6
110	A Scalable Laserâ€Centric Fabrication of an Epidermal Cardiopulmonary Patch. Advanced Materials Technologies, 2022, 7, .	5.8	6
111	Skin-inspired electrochemical tactility and luminescence. Electrochimica Acta, 2022, 415, 140259.	5.2	5
112	Smallâ€Sized Deformable Shear Sensor Array for Direct Monitoring of Quantitative Shear Distribution. Advanced Materials Technologies, 2022, 7, .	5.8	5
113	Ultrasonic Breaking of Fibers and Microparticles into Mesoporous Particles with High Loading of Magnetic Nanoparticles. Macromolecular Materials and Engineering, 2013, 298, 575-582.	3.6	4
114	Printable inks and deformable electronic array devices. Nanoscale Horizons, 2022, 7, 663-681.	8.0	4
115	Pseudoequilibrium between Etching and Selective Grain Growth: Chemical Conversion of a Randomly Oriented Au Film into a (111)-Oriented Ultrathin Au Film. Nano Letters, 2021, 21, 9772-9779.	9.1	1
116	Comprehensive Analysis on Wrinkled Patterns Generated by Inflation and Contraction of Spherical Voids. International Journal of Precision Engineering and Manufacturing - Green Technology, 2018, 5, 651-658.	4.9	0