Il-Doo Kim

List of Publications by Year
in descending order

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219 papers	11,628 citations	19608 61 h-index	34900 98 g-index
232 all docs	232 docs citations	232 times ranked	13277 citing authors

#	Article	IF	Citations
1	Electrospun nanofibers as a platform for advanced secondary batteries: a comprehensive review. Journal of Materials Chemistry A, 2016, 4, 703-750.	5.2	350
2	The Role of NiO Doping in Reducing the Impact of Humidity on the Performance of SnO₂â€Based Gas Sensors: Synthesis Strategies, and Phenomenological and Spectroscopic Studies. Advanced Functional Materials, 2011, 21, 4456-4463.	7.8	329
3	Bifunctional Composite Catalysts Using Co₃O₄ Nanofibers Immobilized on Nonoxidized Graphene Nanoflakes for High-Capacity and Long-Cycle Liâ€“O₂ Batteries. Nano Letters, 2013, 13, 4190-4197.	4.5	329
4	Thinâ€Wall Assembled SnO₂ Fibers Functionalized by Catalytic Pt Nanoparticles and their Superior Exhaledâ€Breathâ€Sensing Properties for the Diagnosis of Diabetes. Advanced Functional Materials, 2013, 23, 2357-2367.	7.8	328
5	Sustainable Personal Protective Clothing for Healthcare Applications: A Review. ACS Nano, 2020, 14, 12313-12340.	7.3	252
6	Nanoscale PdO Catalyst Functionalized Co₃O₄ Hollow Nanocages Using MOF Templates for Selective Detection of Acetone Molecules in Exhaled Breath. ACS Applied Materials & Interfaces, 2017, 9, 8201-8210.	4.0	240
7	Brush-Like Cobalt Nitride Anchored Carbon Nanofiber Membrane: Current Collector-Catalyst Integrated Cathode for Long Cycle Liâ€“O₂ Batteries. ACS Nano, 2018, 12, 128-139.	7.3	230
8	Glycyrrhizic acid affords robust neuroprotection in the postischemic brain via anti-inflammatory effect by inhibiting HMGB1 phosphorylation and secretion. Neurobiology of Disease, 2012, 46, 147-156.	2.1	204
9	Innovative Nanosensor for Disease Diagnosis. Accounts of Chemical Research, 2017, 50, 1587-1596.	7.6	202
10	Mass-scalable synthesis of 3D porous germaniumâ€“carbon composite particles as an ultra-high rate anode for lithium ion batteries. Energy and Environmental Science, 2015, 8, 3577-3588.	15.6	201
11	Recent Developments in 2D Nanomaterials for Chemiresistive-Type Gas Sensors. Electronic Materials Letters, 2018, 14, 221-260.	1.0	197
12	One-Dimensional RuO₂/Mn₂O₃ Hollow Architectures as Efficient Bifunctional Catalysts for Lithiumâ€“Oxygen Batteries. Nano Letters, 2016, 16, 2076-2083.	4.5	193
13	Accelerating Palladium Nanowire H₂ Sensors Using Engineered Nanofiltration. ACS Nano, 2017, 11, 9276-9285.	7.3	190
14	A High-Capacity and Long-Cycle-Life Lithium-Ion Battery Anode Architecture: Silver Nanoparticle-Decorated SnO₂/NiO Nanotubes. ACS Nano, 2016, 10, 11317-11326.	7.3	177
15	Metalâ€“Organic Framework Templated Catalysts: Dual Sensitization of PdOâ€“ZnO Composite on Hollow SnO₂ Nanotubes for Selective Acetone Sensors. ACS Applied Materials & Interfaces, 2017, 9, 18069-18077.	4.0	173
16	Highly reversible switching from P- to N-type NO₂ sensing in a monolayer Fe₂O₃ inverse opal film and the associated Pâ€“N transition phase diagram. Journal of Materials Chemistry A, 2015, 3, 3372-3381.	5.2	164
17	High-Power Aqueous Zinc-Ion Batteries for Customized Electronic Devices. ACS Nano, 2018, 12, 11838-11846.	7.3	158
18	Microsphere Templating as Means of Enhancing Surface Activity and Gas Sensitivity of CaCu3Ti4O12Thin Films. Nano Letters, 2006, 6, 193-198.	4.5	147

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19	Chemiresistive Hydrogen Sensors: Fundamentals, Recent Advances, and Challenges. ACS Nano, 2020, 14, 14284-14322.	7.3	143
20	Rational Design of Highly Porous SnO₂ Nanotubes Functionalized with Biomimetic Nanocatalysts for Direct Observation of Simulated Diabetes. Advanced Functional Materials, 2016, 26, 4740-4748.	7.8	139
21	Metal Organic Framework-Templated Chemiresistor: Sensing Type Transition from P-to-N Using Hollow Metal Oxide Polyhedron via Galvanic Replacement. Journal of the American Chemical Society, 2017, 139, 11868-11876.	6.6	136
22	Transpiration Driven Electrokinetic Power Generator. ACS Nano, 2019, 13, 12703-12709.	7.3	134
23	A Critical Review on Functionalization of Airâ€Cathodes for Nonaqueous Liâ€“O₂ Batteries. Advanced Functional Materials, 2020, 30, 1808303.	7.8	132
24	Lithiumâ€“Air Batteries: Air-Breathing Challenges and Perspective. ACS Nano, 2020, 14, 14549-14578.	7.3	126
25	2D WS₂-edge functionalized multi-channel carbon nanofibers: effect of WS₂ edge-abundant structure on room temperature NO₂ sensing. Journal of Materials Chemistry A, 2017, 5, 8725-8732.	5.2	122
26	Self-operating transpiration-driven electrokinetic power generator with an artificial hydrological cycle. Energy and Environmental Science, 2020, 13, 527-534.	15.6	122
27	Overview of electroceramic materials for oxide semiconductor thin film transistors. Journal of Electroceramics, 2014, 32, 117-140.	0.8	117
28	Exceptional Highâ€Performance of Ptâ€Based Bimetallic Catalysts for Exclusive Detection of Exhaled Biomarkers. Advanced Materials, 2017, 29, 1700737.	11.1	113
29	Pyrolysis of Enzymolysisâ€Treated Wood: Hierarchically Assembled Porous Carbon Electrode for Advanced Energy Storage Devices. Advanced Functional Materials, 2021, 31, 2101077.	7.8	109
30	Nitrogenâ€Doped Single Graphene Fiber with Platinum Water Dissociation Catalyst for Wearable Humidity Sensor. Small, 2018, 14, e1703934.	5.2	105
31	Ultrasensitive and selective C2H5OH sensors using Rh-loaded In2O3 hollow spheres. Journal of Materials Chemistry, 2011, 21, 18560.	6.7	103
32	Molecular engineering of carbonyl organic electrodes for rechargeable metal-ion batteries: fundamentals, recent advances, and challenges. Energy and Environmental Science, 2021, 14, 4228-4267.	15.6	100
33	Single-Atom Pt Stabilized on One-Dimensional Nanostructure Support via Carbon Nitride/SnO₂ Heterojunction Trapping. ACS Nano, 2020, 14, 11394-11405.	7.3	98
34	Nanoscale PtO₂ Catalysts-Loaded SnO₂ Multichannel Nanofibers toward Highly Sensitive Acetone Sensor. ACS Applied Materials & Interfaces, 2018, 10, 2016-2025.	4.0	96
35	Mesoporous SnO₂ Nanotubes via Electrospinningâ€“Etching Route: Highly Sensitive and Selective Detection of H₂S Molecule. ACS Applied Materials & Interfaces, 2017, 9, 26304-26313.	4.0	95
36	Nanoparticle Ex-solution for Supported Catalysts: Materials Design, Mechanism and Future Perspectives. ACS Nano, 2021, 15, 81-110.	7.3	95

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37	Fewâ€Layered WS₂ Nanoplates Confined in Co, Nâ€Doped Hollow Carbon Nanocages: Abundant WS₂ Edges for Highly Sensitive Gas Sensors. Advanced Functional Materials, 2018, 28, 1802575.	7.8	93
38	Rational Design of Efficient Electrocatalysts for Hydrogen Evolution Reaction: Single Layers of WS₂ Nanoplates Anchored to Hollow Nitrogen-Doped Carbon Nanofibers. ACS Applied Materials & Interfaces, 2015, 7, 28116-28121.	4.0	92
39	High-density Fibrous Polyimide Sponges with Superior Mechanical and Thermal Properties. ACS Applied Materials & Interfaces, 2020, 12, 19006-19014.	4.0	92
40	Graphene-Wrapped Anatase TiO2 Nanofibers as High-Rate and Long-Cycle-Life Anode Material for Sodium Ion Batteries. Scientific Reports, 2015, 5, 13862.	1.6	91
41	Ultrafast optical reduction of graphene oxide sheets on colorless polyimide film for wearable chemical sensors. NPG Asia Materials, 2016, 8, e315-e315.	3.8	90
42	Selective, sensitive, and reversible detection of H₂S using Mo-doped ZnO nanowire network sensors. Journal of Materials Chemistry A, 2014, 2, 6412-6418.	5.2	89
43	Hybrid crystalline-ITO/metal nanowire mesh transparent electrodes and their application for highly flexible perovskite solar cells. NPG Asia Materials, 2016, 8, e282-e282.	3.8	89
44	Bimodally Porous WO₃ Microbelts Functionalized with Pt Catalysts for Selective H₂S Sensors. ACS Applied Materials & Interfaces, 2018, 10, 20643-20651.	4.0	87
45	Carbonâ€Interconnected Ge Nanocrystals as an Anode with Ultraâ€Longâ€Term Cyclability for Lithium Ion Batteries. Advanced Functional Materials, 2014, 24, 5291-5298.	7.8	82
46	Exhaled VOCs sensing properties of WO3 nanofibers functionalized by Pt and IrO2 nanoparticles for diagnosis of diabetes and halitosis. Journal of Electroceramics, 2012, 29, 106-116.	0.8	79
47	Facile Synthesis of Pt-Functionalized Meso/Macroporous SnO₂ Hollow Spheres through in Situ Templating with SiO₂ for H₂S Sensors. ACS Applied Materials & Interfaces, 2018, 10, 18183-18191.	4.0	79
48	WO₃ Nanofiber-Based Biomarker Detectors Enabled by Protein-Encapsulated Catalyst Self-Assembled on Polystyrene Colloid Templates. Small, 2016, 12, 911-920.	5.2	76
49	Formation of a Surficial Bifunctional Nanolayer on Nb₂O₅ for Ultrastable Electrodes for Lithiumâ€Ion Battery. Small, 2017, 13, 1603610.	5.2	74
50	Hierarchical Metalâ€“Organic Framework-Assembled Membrane Filter for Efficient Removal of Particulate Matter. ACS Applied Materials & Interfaces, 2018, 10, 19957-19963.	4.0	74
51	Colorimetric Dye-Loaded Nanofiber Yarn: Eye-Readable and Weavable Gas Sensing Platform. ACS Nano, 2020, 14, 16907-16918.	7.3	74
52	Surface Activity-Tuned Metal Oxide Chemiresistor: Toward Direct and Quantitative Halitosis Diagnosis. ACS Nano, 2021, 15, 14207-14217.	7.3	74
53	Highly Efficient Electronic Sensitization of Non-oxidized Graphene Flakes on Controlled Pore-loaded WO3 Nanofibers for Selective Detection of H2S Molecules. Scientific Reports, 2015, 5, 8067.	1.6	70
54	Pt-Functionalized PdO Nanowires for Room Temperature Hydrogen Gas Sensors. ACS Sensors, 2018, 3, 2152-2158.	4.0	70

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55	Towards Watt-scale hydroelectric energy harvesting by Ti₃C₂T_x-based transpiration-driven electrokinetic power generators. Energy and Environmental Science, 2022, 15, 123-135.	15.6	70
56	MOF derived ZnCo₂O₄ porous hollow spheres functionalized with Ag nanoparticles for a long-cycle and high-capacity lithium ion battery anode. Journal of Materials Chemistry A, 2017, 5, 22717-22725.	5.2	69
57	Cobalt(ii) monoxide nanoparticles embedded in porous carbon nanofibers as a highly reversible conversion reaction anode for Li-ion batteries. Journal of Materials Chemistry A, 2013, 1, 3239.	5.2	68
58	Amorphous Zinc Stannate (Zn₂SnO₄) Nanofibers Networks as Photoelectrodes for Organic Dyeâ€Sensitized Solar Cells. Advanced Functional Materials, 2013, 23, 3146-3155.	7.8	67
59	Musselâ€Inspired Polydopamineâ€Treated Reinforced Composite Membranes with Selfâ€Supported CeO_x Radical Scavengers for Highly Stable PEM Fuel Cells. Advanced Functional Materials, 2019, 29, 1806929.	7.8	66
60	Silver Nanowire Embedded Colorless Polyimide Heater for Wearable Chemical Sensors: Improved Reversible Reaction Kinetics of Optically Reduced Graphene Oxide. Small, 2016, 12, 5826-5835.	5.2	65
61	Growth dynamics of solid electrolyte interphase layer on SnO2 nanotubes realized by graphene liquid cell electron microscopy. Nano Energy, 2016, 25, 154-160.	8.2	63
62	Dimensional Effects of MoS₂ Nanoplates Embedded in Carbon Nanofibers for Bifunctional Li and Na Insertion and Conversion Reactions. ACS Applied Materials & Interfaces, 2016, 8, 26758-26768.	4.0	62
63	Metal Chelation Assisted In Situ Migration and Functionalization of Catalysts on Peapod-Like Hollow SnO₂toward a Superior Chemical Sensor. Small, 2016, 12, 5989-5997.	5.2	61
64	Applications and Advances in Bioelectronic Noses for Odour Sensing. Sensors, 2018, 18, 103.	2.1	61
65	A General Synthesis of Crumpled Metal Oxide Nanosheets as Superior Chemiresistive Sensing Layers. Advanced Functional Materials, 2019, 29, 1903128.	7.8	61
66	In Situ Coupling of Multidimensional MOFs for Heterogeneous Metal-Oxide Architectures: Toward Sensitive Chemiresistors. ACS Central Science, 2018, 4, 929-937.	5.3	59
67	Rational design of protective In2O3 layer-coated carbon nanopaper membrane: Toward stable cathode for long-cycle Li-O2 batteries. Nano Energy, 2018, 46, 193-202.	8.2	58
68	Wireless Real-Time Temperature Monitoring of Blood Packages: Silver Nanowire-Embedded Flexible Temperature Sensors. ACS Applied Materials & Interfaces, 2018, 10, 44678-44685.	4.0	58
69	Recent advances in ABO3 perovskites: their gas-sensing performance as resistive-type gas sensors. Springer Series in Emerging Cultural Perspectives in Work, Organizational, and Personnel Studies, 2020, 57, 24-39.	1.5	58
70	Synergistic Coupling of Metallic Cobalt Nitride Nanofibers and IrO_x Nanoparticle Catalysts for Stable Oxygen Evolution. Chemistry of Materials, 2018, 30, 5941-5950.	3.2	57
71	Glassy Metal Alloy Nanofiber Anodes Employing Graphene Wrapping Layer: Toward Ultralong-Cycle-Life Lithium-Ion Batteries. ACS Nano, 2015, 9, 6717-6727.	7.3	55
72	Electrospun Nanostructures for High Performance Chemiresistive and Optical Sensors. Macromolecular Materials and Engineering, 2017, 302, 1600569.	1.7	55

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73	Metalâ€“Organic Framework-Templated PdO-Co₃O₄ Nanocubes Functionalized by SWCNTs: Improved NO₂ Reaction Kinetics on Flexible Heating Film. ACS Applied Materials & Interfaces, 2017, 9, 40593-40603.	4.0	55
74	Three-Dimensional Nanofibrous Air Electrode Assembled With Carbon Nanotubes-Bridged Hollow Fe₂O₃ Nanoparticles for High-Performance Lithiumâ€“Oxygen Batteries. ACS Applied Materials & Interfaces, 2018, 10, 6531-6540.	4.0	55
75	Optically Sintered 2D RuO₂ Nanosheets: Temperatureâ€Controlled NO₂ Reaction. Advanced Functional Materials, 2017, 27, 1606026.	7.8	54
76	Mulberry Paperâ€Based Supercapacitor Exhibiting High Mechanical and Chemical Toughness for Largeâ€Scale Energy Storage Applications. Advanced Energy Materials, 2018, 8, 1800064.	10.2	53
77	The Design and Science of Polyelemental Nanoparticles. ACS Nano, 2020, 14, 6407-6413.	7.3	53
78	Synthesis of Ni-based co-catalyst functionalized W:BiVO₄ nanofibers for solar water oxidation. Green Chemistry, 2016, 18, 944-950.	4.6	50
79	Rational Design of 1-D Co3O4 Nanofibers@Low content Graphene Composite Anode for High Performance Li-Ion Batteries. Scientific Reports, 2017, 7, 45105.	1.6	49
80	Woodâ€Derived, Conductivity and Hierarchical Pore Integrated Thick Electrode Enabling High Areal/Volumetric Energy Density for Hybrid Capacitors. Small, 2021, 17, e2102532.	5.2	49
81	An iron-doped NASICON type sodium ion battery cathode for enhanced sodium storage performance and its full cell applications. Journal of Materials Chemistry A, 2020, 8, 20436-20445.	5.2	48
82	Fast, Scalable Synthesis of Micronized Ge₃N₄@C with a High Tap Density for Excellent Lithium Storage. Advanced Functional Materials, 2017, 27, 1605975.	7.8	47
83	Sub-Parts-per-Million Hydrogen Sulfide Colorimetric Sensor: Lead Acetate Anchored Nanofibers toward Halitosis Diagnosis. Analytical Chemistry, 2018, 90, 8769-8775.	3.2	47
84	Facile synthesis of hierarchical porous WO₃ nanofibers having 1D nanoneedles and their functionalization with non-oxidized graphene flakes for selective detection of acetone molecules. RSC Advances, 2015, 5, 7584-7588.	1.7	46
85	Feasible Defect Engineering by Employing Metal Organic Framework Templates into One-Dimensional Metal Oxides for Battery Applications. ACS Applied Materials & Interfaces, 2018, 10, 20540-20549.	4.0	46
86	Graphene Liquid Cell Electron Microscopy: Progress, Applications, and Perspectives. ACS Nano, 2021, 15, 288-308.	7.3	45
87	Hierarchically Assembled Cobalt Oxynitride Nanorods and N-Doped Carbon Nanofibers for Efficient Bifunctional Oxygen Electrocatalysis with Exceptional Regenerative Efficiency. ACS Nano, 2021, 15, 11218-11230.	7.3	45
88	Atomic-scale combination of germanium-zinc nanofibers for structural and electrochemical evolution. Nature Communications, 2019, 10, 2364.	5.8	44
89	Rational design of Sn-based multicomponent anodes for high performance lithium-ion batteries: SnO₂@TiO₂@reduced graphene oxide nanotubes. RSC Advances, 2016, 6, 2920-2925.	1.7	43
90	Highly efficient and stable solid-state Liâ€“O₂ batteries using a perovskite solid electrolyte. Journal of Materials Chemistry A, 2019, 7, 3150-3160.	5.2	43

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91	Stress-Tolerant Nanoporous Germanium Nanofibers for Long Cycle Life Lithium Storage with High Structural Stability. ACS Nano, 2018, 12, 8169-8176.	7.3	42
92	2D Metal Chalcogenide Nanopatterns by Block Copolymer Lithography. Advanced Functional Materials, 2018, 28, 1804508.	7.8	41
93	Heterogeneous, Porous 2D Oxide Sheets via Rapid Galvanic Replacement: Toward Superior HCHO Sensing Application. Advanced Functional Materials, 2019, 29, 1903012.	7.8	41
94	Tailored Combination of Low Dimensional Catalysts for Efficient Oxygen Reduction and Evolution in Liâ€“O₂ Batteries. ChemSusChem, 2016, 9, 2080-2088.	3.6	39
95	Electrospun fibers based on carbohydrate gum polymers and their multifaceted applications. Carbohydrate Polymers, 2020, 247, 116705.	5.1	39
96	Pore-Size-Tuned Graphene Oxide Membrane as a Selective Molecular Sieving Layer: Toward Ultraselective Chemiresistors. Analytical Chemistry, 2020, 92, 957-965.	3.2	38
97	Ensemble Design of Electrodeâ€“Electrolyte Interfaces: Toward High-Performance Thin-Film All-Solid-State Liâ€“Metal Batteries. ACS Nano, 2021, 15, 4561-4575.	7.3	38
98	Polyelemental Nanoparticles as Catalysts for a Liâ€“O₂ Battery. ACS Nano, 2021, 15, 4235-4244.	7.3	38
99	Electrospun materials for solar energy conversion: innovations and trends. Journal of Materials Chemistry C, 2016, 4, 10173-10197.	2.7	37
100	Bioinspired Cocatalysts Decorated WO₃ Nanotube Toward Unparalleled Hydrogen Sulfide Chemiresistor. ACS Sensors, 2018, 3, 1164-1173.	4.0	36
101	Reducing Time to Discovery: Materials and Molecular Modeling, Imaging, Informatics, and Integration. ACS Nano, 2021, 15, 3971-3995.	7.3	36
102	Large-area synthesis of nanoscopic catalyst-decorated conductive MOF film using microfluidic-based solution shearing. Nature Communications, 2021, 12, 4294.	5.8	36
103	Crystalline IrO2-decorated TiO2 nanofiber scaffolds for robust and sustainable solar water oxidation. Journal of Materials Chemistry A, 2014, 2, 5610.	5.2	34
104	Intranasal delivery of HMGB1-binding heptamer peptide confers a robust neuroprotection in the postischemic brain. Neuroscience Letters, 2012, 525, 179-183.	1.0	33
105	Tree Gumâ€“Graphene Oxide Nanocomposite Films as Gas Barriers. ACS Applied Nano Materials, 2020, 3, 633-640.	2.4	33
106	2D Materials Decorated with Ultrathin and Porous Graphene Oxide for High Stability and Selective Surface Activity. Advanced Materials, 2020, 32, e2002723.	11.1	33
107	Recycling non-food-grade tree gum wastes into nanoporous carbon for sustainable energy harvesting. Green Chemistry, 2020, 22, 1198-1208.	4.6	33
108	Hierarchical ZnO Nanowires-loaded Sb-doped SnO2-ZnO Micrograting Pattern via Direct Imprinting-assisted Hydrothermal Growth and Its Selective Detection of Acetone Molecules. Scientific Reports, 2016, 6, 18731.	1.6	32

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109	High-rate formation cycle of Co3O4 nanoparticle for superior electrochemical performance in lithium-ion batteries. Electrochimica Acta, 2019, 295, 7-13.	2.6	32
110	Highly porous coral-like silicon particles synthesized by an ultra-simple thermal-reduction method. Journal of Materials Chemistry A, 2018, 6, 2834-2846.	5.2	31
111	Cu Microbelt Network Embedded in Colorless Polyimide Substrate: Flexible Heater Platform with High Optical Transparency and Superior Mechanical Stability. ACS Applied Materials & Interfaces, 2017, 9, 39650-39656.	4.0	29
112	Perovskite La_{0.75}Sr_{0.25}Cr_{0.5}Mn_{0.5}O_{3â˜Î´} sensitized SnO₂ fiber-in-tube scaffold: highly selective and sensitive formaldehyde sensing. Journal of Materials Chemistry A, 2018, 6, 10543-10551.	5.2	29
113	Oxide/ZIFâ€8 Hybrid Nanofiber Yarns: Heightened Surface Activity for Exceptional Chemiresistive Sensing. Advanced Materials, 2022, 34, e2105869.	11.1	29
114	Rigorous substrate cleaning process for reproducible thin film hematite (Î±-Fe₂O₃) photoanodes. Journal of Materials Research, 2016, 31, 1565-1573.	1.2	28
115	Graphene oxide templating: facile synthesis of morphology engineered crumpled SnO₂ nanofibers for superior chemiresistors. Journal of Materials Chemistry A, 2018, 6, 13825-13834.	5.2	28
116	Highâ€Performance, Flexible NO₂ Chemiresistors Achieved by Design of Imineâ€Incorporated nâ€Type Conjugated Polymers. Advanced Science, 2022, 9, e2200270.	5.6	28
117	Janus Graphene Liquid Crystalline Fiber with Tunable Properties Enabled by Ultrafast Flash Reduction. Small, 2019, 15, e1901529.	5.2	27
118	Heterogeneous Metal Oxideâ€“Graphene Thorn-Bush Single Fiber as a Freestanding Chemiresistor. ACS Applied Materials & Interfaces, 2019, 11, 10208-10217.	4.0	27
119	Largeâ€Area Synthesis of Ultrathin, Flexible, and Transparent Conductive Metalâ€“Organic Framework Thin Films via a Microfluidicâ€Based Solution Shearing Process. Advanced Materials, 2022, 34, e2107696.	11.1	27
120	Porous Nanofiber Membrane: Rational Platform for Highly Sensitive Thermochromic Sensor. Advanced Functional Materials, 2022, 32, .	7.8	27
121	An angstrom-level d-spacing control of graphite oxide using organofillers for high-rate lithium storage. CheM, 2022, 8, 2393-2409.	5.8	27
122	Direct Realization of Complete Conversion and Agglomeration Dynamics of SnO₂ Nanoparticles in Liquid Electrolyte. ACS Omega, 2017, 2, 6329-6336.	1.6	26
123	Dopantâ€Driven Positive Reinforcement in Exâ€Solution Process: New Strategy to Develop Highly Capable and Durable Catalytic Materials. Advanced Materials, 2020, 32, e2003983.	11.1	26
124	3D periodic polyimide nano-networks for ultrahigh-rate and sustainable energy storage. Energy and Environmental Science, 2021, 14, 5894-5902.	15.6	26
125	Synergistic Integration of Chemoâ€Resistive and SERS Sensing for Labelâ€Free Multiplex Gas Detection. Advanced Materials, 2021, 33, e2105199.	11.1	25
126	Recent Progress in 1D Air Electrode Nanomaterials for Enhancing the Performance of Nonaqueous Lithiumâ€“Oxygen Batteries. ChemNanoMat, 2016, 2, 616-634.	1.5	24

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127	Ultrastable Grapheneâ€Encapsulated 3 nm Nanoparticles by In Situ Chemical Vapor Deposition. Advanced Materials, 2018, 30, e1805023.	11.1	24
128	Confinement of Ultrasmall Bimetallic Nanoparticles in Conductive Metalâ€“Organic Frameworks via Siteâ€Specific Nucleation. Advanced Materials, 2021, 33, e2101216.	11.1	23
129	Facile Synthesis of pâ€type Perovskite SrTi_{0.65}Fe_{0.35}O_{3â€“Î´} Nanofibers Prepared by Electrospinning and Their Oxygenâ€Sensing Properties. Macromolecular Materials and Engineering, 2013, 298, 521-527.	1.7	22
130	Highly Conducting In₂O₃ Nanowire Network with Passivating ZrO₂ Thin Film for Solutionâ€Processed Field Effect Transistors. Advanced Electronic Materials, 2016, 2, 1600218.	2.6	21
131	In Situ High-Resolution Transmission Electron Microscopy (TEM) Observation of Sn Nanoparticles on SnO₂ Nanotubes Under Lithiation. Microscopy and Microanalysis, 2017, 23, 1107-1115.	0.2	21
132	Material-Independent Nanotransfer onto a Flexible Substrate Using Mechanical-Interlocking Structure. ACS Nano, 2018, 12, 4387-4397.	7.3	21
133	Ultralight, Structurally Stable Electrospun Sponges with Tailored Hydrophilicity as a Novel Material Platform. ACS Applied Materials & Interfaces, 2020, 12, 18002-18011.	4.0	21
134	Ridge waveguide using highly oriented BaTiO₃ thin films for electro-optic application. Journal of Asian Ceramic Societies, 2014, 2, 231-234.	1.0	20
135	Expanding depletion region via doping: Zn-doped Cu2O buffer layer in Cu2O photocathodes for photoelectrochemical water splitting. Korean Journal of Chemical Engineering, 2017, 34, 3214-3219.	1.2	20
136	A facile route for growth of CNTs on Si@hard carbon for conductive agent incorporating anodes for lithium-ion batteries. Nanoscale, 2015, 7, 11286-11290.	2.8	19
137	Gallium Nitride Nanoparticles Embedded in a Carbon Nanofiber Anode for Ultralong-Cycle-Life Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 44263-44269.	4.0	19
138	Ion-permselective conducting polymer-based electrokinetic generators with maximized utility of green water. Nano Energy, 2022, 94, 106946.	8.2	19
139	Searching for an Optimal Multiâ€Metallic Alloy Catalyst by Active Learning Combined with Experiments. Advanced Materials, 2022, 34, e2108900.	11.1	19
140	Violacein-embedded nanofiber filters with antiviral and antibacterial activities. Chemical Engineering Journal, 2022, 444, 136460.	6.6	19
141	Nitrogenâ€Dopantâ€Induced Organicâ€“Inorganic Hybrid Perovskite Crystal Growth on Carbon Nanotubes. Advanced Functional Materials, 2019, 29, 1902489.	7.8	18
142	Focused Electric-Field Polymer Writing: Toward Ultralarge, Multistimuli-Responsive Membranes. ACS Nano, 2020, 14, 12173-12183.	7.3	18
143	Unravelling high volumetric capacity of Co₃O₄ nanograin-interconnected secondary particles for lithium-ion battery anodes. Journal of Materials Chemistry A, 2021, 9, 6242-6251.	5.2	18
144	Sacrificial Templateâ€Assisted Synthesis of Inorganic Nanosheets with Highâ€Loading Singleâ€Atom Catalysts: A General Approach. Advanced Functional Materials, 2022, 32, 2110485.	7.8	18

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145	Highly flexible transparent electrodes using a silver nanowires-embedded colorless polyimide film via chemical modification. RSC Advances, 2016, 6, 30331-30336.	1.7	17
146	Glassâ€Fabric Reinforced Ag Nanowire/Siloxane Composite Heater Substrate: Subâ€10 nm Metal@Metal Oxide Nanosheet for Sensitive Flexible Sensing Platform. Small, 2018, 14, e1802260.	5.2	17
147	Three-Dimensional, Submicron Porous Electrode with a Density Gradient to Enhance Charge Carrier Transport. ACS Nano, 2022, 16, 9762-9771.	7.3	17
148	Free-Standing Carbon Nanofibers Protected by a Thin Metallic Iridium Layer for Extended Life-Cycle Liâ€“Oxygen Batteries. ACS Applied Materials & Interfaces, 2020, 12, 55756-55765.	4.0	16
149	Design of Hollow Nanofibrous Structures using Electrospinning: An Aspect of Chemical Sensor Applications. ChemNanoMat, 2020, 6, 1014-1027.	1.5	16
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