

Dingchang Lin

List of Publications by Year in descending order

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241
papers

107,071
citations

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150
h-index

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240
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241
docs citations

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times ranked

47516
citing authors

#	ARTICLE	IF	CITATIONS
1	Bifunctional Asymmetric Fabric with Tailored Thermal Conduction and Radiation for Personal Cooling and Warming. <i>Engineering</i> , 2022, 10, 167-173.	6.7	15
2	Liquid electrolyte: The nexus of practical lithium metal batteries. <i>Joule</i> , 2022, 6, 588-616.	24.0	191
3	Rational solvent molecule tuning for high-performance lithium metal battery electrolytes. <i>Nature Energy</i> , 2022, 7, 94-106.	39.5	336
4	Suspension electrolyte with modified Li ⁺ solvation environment for lithium metal batteries. <i>Nature Materials</i> , 2022, 21, 445-454.	27.5	155
5	Scalable, Ultrathin, and High-Temperature-Resistant Solid Polymer Electrolytes for Energy-Dense Lithium Metal Batteries. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	132
6	Graphene coating on silicon anodes enabled by thermal surface modification for high-energy lithium-ion batteries. <i>MRS Bulletin</i> , 2022, 47, 127-133.	3.5	13
7	Coloured low-emissivity films for building envelopes for year-round energy savings. <i>Nature Sustainability</i> , 2022, 5, 339-347.	23.7	80
8	Formulating energy density for designing practical lithium-sulfur batteries. <i>Nature Energy</i> , 2022, 7, 312-319.	39.5	342
9	Scalable Three-Dimensional Recording Electrodes for Probing Biological Tissues. <i>Nano Letters</i> , 2022, 22, 4552-4559.	9.1	9
10	Cold-Starting All-Solid-State Batteries from Room Temperature by Thermally Modulated Current Collector in Sub-Minute. <i>Advanced Materials</i> , 2022, 34, .	21.0	5
11	Electrical resistance of the current collector controls lithium morphology. <i>Nature Communications</i> , 2022, 13, .	12.8	20
12	Chemomechanics of Rechargeable Batteries: Status, Theories, and Perspectives. <i>Chemical Reviews</i> , 2022, 122, 13043-13107.	47.7	59
13	An X-ray Photoelectron Spectroscopy Primer for Solid Electrolyte Interphase Characterization in Lithium Metal Anodes. <i>ACS Energy Letters</i> , 2022, 7, 2540-2546.	17.4	46
14	Fibrous Materials for Flexible Li-S Battery. <i>Advanced Energy Materials</i> , 2021, 11, 2002580.	19.5	85
15	Organic wastewater treatment by a single-atom catalyst and electrolytically produced H ₂ O ₂ . <i>Nature Sustainability</i> , 2021, 4, 233-241.	23.7	350
16	Correlating Li-Ion Solvation Structures and Electrode Potential Temperature Coefficients. <i>Journal of the American Chemical Society</i> , 2021, 143, 2264-2271.	18.7	44
17	Electrolyte-Resistant Dual Materials for the Synergistic Safety Enhancement of Lithium-Ion Batteries. <i>Nano Letters</i> , 2021, 21, 2074-2080.	9.1	37
18	3D Artificial Solid-Electrolyte Interphase for Lithium Metal Anodes Enabled by Insulator-Metal-Insulator Layered Heterostructures. <i>Advanced Materials</i> , 2021, 33, e2006247.	21.0	147

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19	Efficient Lithium Metal Cycling over a Wide Range of Pressures from an Anion-Derived Solid-Electrolyte Interphase Framework. ACS Energy Letters, 2021, 6, 816-825.	17.4	46
20	A Replacement Reaction Enabled Interdigitated Metal/Solid Electrolyte Architecture for Battery Cycling at 20 mA cm^{-2} and 20 mAh cm^{-2} . Journal of the American Chemical Society, 2021, 143, 3143-3152.	13.7	132
21	Corrosion of lithium metal anodes during calendar ageing and its microscopic origins. Nature Energy, 2021, 6, 487-494.	39.5	124
22	All-Tissue-like Multifunctional Optoelectronic Mesh for Deep-Brain Modulation and Mapping. Nano Letters, 2021, 21, 3184-3190.	9.1	9
23	Dual-Solvent Li ⁺ Ion Solvation Enables High-Performance Li-Metal Batteries. Advanced Materials, 2021, 33, e2008619.	21.0	123
24	Free-standing ultrathin lithium metal-graphene oxide host foils with controllable thickness for lithium batteries. Nature Energy, 2021, 6, 790-798.	39.5	198
25	Integrated cooling (i-Cool) textile of heat conduction and sweat transportation for personal perspiration management. Nature Communications, 2021, 12, 6122.	12.8	86
26	A Morphologically Stable Li/Electrolyte Interface for All-Solid-State Batteries Enabled by 3D-Micropatterned Garnet. Advanced Materials, 2021, 33, e2104009.	21.0	76
27	Steric Effect Tuned Ion Solvation Enabling Stable Cycling of High-Voltage Lithium Metal Battery. Journal of the American Chemical Society, 2021, 143, 18703-18713.	13.7	205
28	All-Solid-State Lithium-Sulfur Batteries Enhanced by Redox Mediators. Journal of the American Chemical Society, 2021, 143, 18188-18195.	13.7	66
29	Dynamic spatial progression of isolated lithium during battery operations. Nature, 2021, 600, 659-663.	27.8	111
30	High energy density lithium metal batteries enabled by a porous graphene/MgF ₂ framework. Energy Storage Materials, 2020, 26, 73-82.	18.0	79
31	Synergistic enhancement of electrocatalytic CO ₂ reduction to C ₂ oxygenates at nitrogen-doped nanodiamonds/Cu interface. Nature Nanotechnology, 2020, 15, 131-137.	31.5	169
32	A binder-free high silicon content flexible anode for Li-ion batteries. Energy and Environmental Science, 2020, 13, 848-858.	30.8	245
33	Nickel Impurities in the Solid-Electrolyte Interphase of Lithium-Metal Anodes Revealed by Cryogenic Electron Microscopy. Cell Reports Physical Science, 2020, 1, 100188.	5.6	22
34	Ultralight and fire-extinguishing current collectors for high-energy and high-safety lithium-ion batteries. Nature Energy, 2020, 5, 786-793.	39.5	168
35	Microclusters of Kinked Silicon Nanowires Synthesized by a Recyclable Iodide Process for High-Performance Lithium-Ion Battery Anodes. Advanced Energy Materials, 2020, 10, 2002108.	19.5	57
36	Self-assembled materials for electrochemical energy storage. MRS Bulletin, 2020, 45, 815-822.	3.5	7

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37	Revealing and Elucidating ALD-Derived Control of Lithium Plating Microstructure. <i>Advanced Energy Materials</i> , 2020, 10, 2002736.	19.5	37
38	Design Principles of Artificial Solid Electrolyte Interphases for Lithium-Metal Anodes. <i>Cell Reports Physical Science</i> , 2020, 1, 100119.	5.6	133
39	Opportunities for Cryogenic Electron Microscopy in Materials Science and Nanoscience. <i>ACS Nano</i> , 2020, 14, 9263-9276.	14.6	55
40	Immunizing lithium metal anodes against dendrite growth using protein molecules to achieve high energy batteries. <i>Nature Communications</i> , 2020, 11, 5429.	12.8	129
41	A Cation-Tethered Flowable Polymeric Interface for Enabling Stable Deposition of Metallic Lithium. <i>Journal of the American Chemical Society</i> , 2020, 142, 21393-21403.	13.7	65
42	Underpotential lithium plating on graphite anodes caused by temperature heterogeneity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 29453-29461.	7.1	94
43	Electrode Design with Integration of High Tortuosity and Sulfur-Philicity for High-Performance Lithium-Sulfur Battery. <i>Matter</i> , 2020, 2, 1605-1620.	10.0	83
44	Stretchable electrochemical energy storage devices. <i>Chemical Society Reviews</i> , 2020, 49, 4466-4495.	38.1	209
45	Molecular design for electrolyte solvents enabling energy-dense and long-cycling lithium metal batteries. <i>Nature Energy</i> , 2020, 5, 526-533.	39.5	642
46	A Garnet-Type Solid-Electrolyte-Based Molten Lithium-Molybdenum-Iron(II) Chloride Battery with Advanced Reaction Mechanism. <i>Advanced Materials</i> , 2020, 32, e2000960.	21.0	14
47	Incorporating the Nanoscale Encapsulation Concept from Liquid Electrolytes into Solid-State Lithium-Sulfur Batteries. <i>Nano Letters</i> , 2020, 20, 5496-5503.	9.1	30
48	Resolving Nanoscopic and Mesoscopic Heterogeneity of Fluorinated Species in Battery Solid-Electrolyte Interphases by Cryogenic Electron Microscopy. <i>ACS Energy Letters</i> , 2020, 5, 1128-1135.	17.4	199
49	A New Class of Ionically Conducting Fluorinated Ether Electrolytes with High Electrochemical Stability. <i>Journal of the American Chemical Society</i> , 2020, 142, 7393-7403.	13.7	225
50	Lithium Extraction from Seawater through Pulsed Electrochemical Intercalation. <i>Joule</i> , 2020, 4, 1459-1469.	24.0	152
51	Detection of Micro-Scale Li Dendrite via H ₂ Gas Capture for Early Safety Warning. <i>Joule</i> , 2020, 4, 1714-1729.	24.0	105
52	High-purity electrolytic lithium obtained from low-purity sources using solid electrolyte. <i>Nature Sustainability</i> , 2020, 3, 386-390.	23.7	54
53	A novel battery scheme: Coupling nanostructured phosphorus anodes with lithium sulfide cathodes. <i>Nano Research</i> , 2020, 13, 1383-1388.	10.4	13
54	Mechanical rolling formation of interpenetrated lithium metal/lithium tin alloy foil for ultrahigh-rate battery anode. <i>Nature Communications</i> , 2020, 11, 829.	12.8	246

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55	A Single-Ion Conducting Borate Network Polymer as a Viable Quasi-Solid Electrolyte for Lithium Metal Batteries. <i>Advanced Materials</i> , 2020, 32, e1905771.	21.0	121
56	Scalable synthesis of nanoporous silicon microparticles for highly cyclable lithium-ion batteries. <i>Nano Research</i> , 2020, 13, 1558-1563.	10.4	65
57	Advanced Textiles for Personal Thermal Management and Energy. <i>Joule</i> , 2020, 4, 724-742.	24.0	358
58	Tortuosity Effects in Lithium-Metal Host Anodes. <i>Joule</i> , 2020, 4, 938-952.	24.0	150
59	Improving Lithium Metal Composite Anodes with Seeding and Pillaring Effects of Silicon Nanoparticles. <i>ACS Nano</i> , 2020, 14, 4601-4608.	14.6	61
60	Evolution of the Solid-Electrolyte Interphase on Carbonaceous Anodes Visualized by Atomic-Resolution Cryogenic Electron Microscopy. <i>Nano Letters</i> , 2019, 19, 5140-5148.	9.1	132
61	Nanoenabled Direct Contact Interfacing of Syringe-Injectable Mesh Electronics. <i>Nano Letters</i> , 2019, 19, 5818-5826.	9.1	41
62	Self-Selective Catalyst Synthesis for CO ₂ Reduction. <i>Joule</i> , 2019, 3, 1927-1936.	24.0	63
63	Improving cyclability of Li metal batteries at elevated temperatures and its origin revealed by cryo-electron microscopy. <i>Nature Energy</i> , 2019, 4, 664-670.	39.5	336
64	Improved Oxygen Reduction Reaction Activity of Nanostructured CoS ₂ through Electrochemical Tuning. <i>ACS Applied Energy Materials</i> , 2019, 2, 8605-8614.	5.1	42
65	Lithium Metal Anode Materials Design: Interphase and Host. <i>Electrochemical Energy Reviews</i> , 2019, 2, 509-517.	25.5	156
66	Nanodiamonds for energy. , 2019, 1, 13-18.		116
67	Nonpolar Alkanes Modify Lithium-Ion Solvation for Improved Lithium Deposition and Stripping. <i>Advanced Energy Materials</i> , 2019, 9, 1902116.	19.5	86
68	Monolithic solid-electrolyte interphases formed in fluorinated orthoformate-based electrolytes minimize Li depletion and pulverization. <i>Nature Energy</i> , 2019, 4, 796-805.	39.5	621
69	A Dynamic, Electrolyte-Blocking, and Single-Ion-Conductive Network for Stable Lithium-Metal Anodes. <i>Joule</i> , 2019, 3, 2761-2776.	24.0	176
70	Nanowires for Electrochemical Energy Storage. <i>Chemical Reviews</i> , 2019, 119, 11042-11109.	47.7	309
71	Fast galvanic lithium corrosion involving a Kirkendall-type mechanism. <i>Nature Chemistry</i> , 2019, 11, 382-389.	13.6	180
72	Wrinkled Graphene Cages as Hosts for High-Capacity Li Metal Anodes Shown by Cryogenic Electron Microscopy. <i>Nano Letters</i> , 2019, 19, 1326-1335.	9.1	193

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73	Ultrathin, flexible, solid polymer composite electrolyte enabled with aligned nanoporous host for lithium batteries. <i>Nature Nanotechnology</i> , 2019, 14, 705-711.	31.5	773
74	Diatomite derived hierarchical hybrid anode for high performance all-solid-state lithium metal batteries. <i>Nature Communications</i> , 2019, 10, 2482.	12.8	96
75	Temperature-Dependent Nucleation and Growth of Dendrite-Free Lithium Metal Anodes. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 11364-11368.	13.8	182
76	Temperature-Dependent Nucleation and Growth of Dendrite-Free Lithium Metal Anodes. <i>Angewandte Chemie</i> , 2019, 131, 11486-11490.	2.0	72
77	Challenges and opportunities towards fast-charging battery materials. <i>Nature Energy</i> , 2019, 4, 540-550.	39.5	1,053
78	Direct/Alternating Current Electrochemical Method for Removing and Recovering Heavy Metal from Water Using Graphene Oxide Electrode. <i>ACS Nano</i> , 2019, 13, 6431-6437.	14.6	181
79	An Autotransferable $\text{N}_3^-/\text{N}_4^{2-}$ Li ⁺ -Modulating Layer toward Stable Lithium Anodes. <i>Advanced Materials</i> , 2019, 31, e1900342.	21.0	205
80	Fast lithium growth and short circuit induced by localized-temperature hotspots in lithium batteries. <i>Nature Communications</i> , 2019, 10, 2067.	12.8	177
81	Uniform High Ionic Conducting Lithium Sulfide Protection Layer for Stable Lithium Metal Anode. <i>Advanced Energy Materials</i> , 2019, 9, 1900858.	19.5	333
82	Composite lithium electrode with mesoscale skeleton via simple mechanical deformation. <i>Science Advances</i> , 2019, 5, eaau5655.	10.3	79
83	Design of Red Phosphorus Nanostructured Electrode for Fast-Charging Lithium-Ion Batteries with High Energy Density. <i>Joule</i> , 2019, 3, 1080-1093.	24.0	168
84	Designing polymers for advanced battery chemistries. <i>Nature Reviews Materials</i> , 2019, 4, 312-330.	48.7	579
85	Temperature Regulation in Colored Infrared-Transparent Polyethylene Textiles. <i>Joule</i> , 2019, 3, 1478-1486.	24.0	213
86	Pathways for practical high-energy long-cycling lithium metal batteries. <i>Nature Energy</i> , 2019, 4, 180-186.	39.5	2,101
87	High-Rate and Large-Capacity Lithium Metal Anode Enabled by Volume Conformal and Self-Healable Composite Polymer Electrolyte. <i>Advanced Science</i> , 2019, 6, 1802353.	11.2	133
88	Minimized lithium trapping by isovalent isomorphism for high initial Coulombic efficiency of silicon anodes. <i>Science Advances</i> , 2019, 5, eaax0651.	10.3	122
89	An ultrathin ionomer interphase for high efficiency lithium anode in carbonate based electrolyte. <i>Nature Communications</i> , 2019, 10, 5824.	12.8	62
90	Decoupling of mechanical properties and ionic conductivity in supramolecular lithium ion conductors. <i>Nature Communications</i> , 2019, 10, 5384.	12.8	249

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91	Energy storage: The future enabled by nanomaterials. <i>Science</i> , 2019, 366, .	12.6	1,119
92	Single-Cell Profiles of Retinal Ganglion Cells Differing in Resilience to Injury Reveal Neuroprotective Genes. <i>Neuron</i> , 2019, 104, 1039-1055.e12.	8.1	396
93	An Interconnected Channel-Like Framework as Host for Lithium Metal Composite Anodes. <i>Advanced Energy Materials</i> , 2019, 9, 1802720.	19.5	83
94	Improving a Mg/S Battery with YCl ₃ Additive and Magnesium Polysulfide. <i>Advanced Science</i> , 2019, 6, 1800981.	11.2	50
95	Practical Challenges and Future Perspectives of All-Solid-State Lithium-Metal Batteries. <i>CheM</i> , 2019, 5, 753-785.	11.7	595
96	Nanostructural and Electrochemical Evolution of the Solid-Electrolyte Interphase on CuO Nanowires Revealed by Cryogenic-Electron Microscopy and Impedance Spectroscopy. <i>ACS Nano</i> , 2019, 13, 737-744.	14.6	78
97	Design of Hollow Nanostructures for Energy Storage, Conversion and Production. <i>Advanced Materials</i> , 2019, 31, e1801993.	21.0	313
98	Nanoporous polyethylene microfibrils for large-scale radiative cooling fabric. <i>Nature Sustainability</i> , 2018, 1, 105-112.	23.7	370
99	High-efficiency oxygen reduction to hydrogen peroxide catalysed by oxidized carbon materials. <i>Nature Catalysis</i> , 2018, 1, 156-162.	34.4	1,120
100	In Situ Investigation on the Nanoscale Capture and Evolution of Aerosols on Nanofibers. <i>Nano Letters</i> , 2018, 18, 1130-1138.	9.1	65
101	Vertically Aligned and Continuous Nanoscale Ceramic-Polymer Interfaces in Composite Solid Polymer Electrolytes for Enhanced Ionic Conductivity. <i>Nano Letters</i> , 2018, 18, 3829-3838.	9.1	268
102	A general prelithiation approach for group IV elements and corresponding oxides. <i>Energy Storage Materials</i> , 2018, 10, 275-281.	18.0	94
103	Robust Pinhole-free Li ₃ N Solid Electrolyte Grown from Molten Lithium. <i>ACS Central Science</i> , 2018, 4, 97-104.	11.3	197
104	Morphology and property investigation of primary particulate matter particles from different sources. <i>Nano Research</i> , 2018, 11, 3182-3192.	10.4	54
105	Correlating Structure and Function of Battery Interphases at Atomic Resolution Using Cryoelectron Microscopy. <i>Joule</i> , 2018, 2, 2167-2177.	24.0	284
106	Flexible and stable high-energy lithium-sulfur full batteries with only 100% oversized lithium. <i>Nature Communications</i> , 2018, 9, 4480.	12.8	193
107	Catalyst: How Cryo-EM Shapes the Development of Next-Generation Batteries. <i>CheM</i> , 2018, 4, 2250-2252.	11.7	24
108	Nickel-hydrogen batteries for large-scale energy storage. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 11694-11699.	7.1	77

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109	Shell-Protective Secondary Silicon Nanostructures as Pressure-Resistant High-Volumetric-Capacity Anodes for Lithium-Ion Batteries. <i>Nano Letters</i> , 2018, 18, 7060-7065.	9.1	121
110	Solubility-mediated sustained release enabling nitrate additive in carbonate electrolytes for stable lithium metal anode. <i>Nature Communications</i> , 2018, 9, 3656.	12.8	371
111	Lithium Electrochemical Tuning for Electrocatalysis. <i>Advanced Materials</i> , 2018, 30, e1800978.	21.0	51
112	A Dual-Crosslinking Design for Resilient Lithium-Ion Conductors. <i>Advanced Materials</i> , 2018, 30, e1804142.	21.0	128
113	Fundamental study on the wetting property of liquid lithium. <i>Energy Storage Materials</i> , 2018, 14, 345-350.	18.0	161
114	An intermediate temperature garnet-type solid electrolyte-based molten lithium battery for grid energy storage. <i>Nature Energy</i> , 2018, 3, 732-738.	39.5	170
115	Stretchable Lithium Metal Anode with Improved Mechanical and Electrochemical Cycling Stability. <i>Joule</i> , 2018, 2, 1857-1865.	24.0	132
116	A Silica-Aerogel-Reinforced Composite Polymer Electrolyte with High Ionic Conductivity and High Modulus. <i>Advanced Materials</i> , 2018, 30, e1802661.	21.0	392
117	Core-Shell Nanofibrous Materials with High Particulate Matter Removal Efficiencies and Thermally Triggered Flame Retardant Properties. <i>ACS Central Science</i> , 2018, 4, 894-898.	11.3	73
118	Materials for lithium-ion battery safety. <i>Science Advances</i> , 2018, 4, eaas9820.	10.3	958
119	Lithium metal stripping beneath the solid electrolyte interphase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 8529-8534.	7.1	150
120	Efficient electrocatalytic CO ₂ reduction on a three-phase interface. <i>Nature Catalysis</i> , 2018, 1, 592-600.	34.4	336
121	Engineering stable interfaces for three-dimensional lithium metal anodes. <i>Science Advances</i> , 2018, 4, eaat5168.	10.3	153
122	Spectrally Selective Nanocomposite Textile for Outdoor Personal Cooling. <i>Advanced Materials</i> , 2018, 30, e1802152.	21.0	362
123	Effects of Polymer Coatings on Electrodeposited Lithium Metal. <i>Journal of the American Chemical Society</i> , 2018, 140, 11735-11744.	13.7	307
124	An Ultrastrong Double-Layer Nanodiamond Interface for Stable Lithium Metal Anodes. <i>Joule</i> , 2018, 2, 1595-1609.	24.0	155
125	Self-healing SEI enables full-cell cycling of a silicon-majority anode with a coulombic efficiency exceeding 99.9%. <i>Energy and Environmental Science</i> , 2017, 10, 580-592.	30.8	421
126	Nanoscale Nucleation and Growth of Electrodeposited Lithium Metal. <i>Nano Letters</i> , 2017, 17, 1132-1139.	9.1	1,081

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127	Electrospun core-shell microfiber separator with thermal-triggered flame-retardant properties for lithium-ion batteries. <i>Science Advances</i> , 2017, 3, e1601978.	10.3	245
128	Sulfiphilic Nickel Phosphosulfide Enabled Li_2S Impregnation in 3D Graphene Cages for Li-S Batteries. <i>Advanced Materials</i> , 2017, 29, 1603366.	21.0	139
129	A half-wave rectified alternating current electrochemical method for uranium extraction from seawater. <i>Nature Energy</i> , 2017, 2, .	39.5	388
130	Core-Shell Nanoparticle Coating as an Interfacial Layer for Dendrite-Free Lithium Metal Anodes. <i>ACS Central Science</i> , 2017, 3, 135-140.	11.3	162
131	Reviving the lithium metal anode for high-energy batteries. <i>Nature Nanotechnology</i> , 2017, 12, 194-206.	31.5	4,804
132	Identifying the Active Surfaces of Electrochemically Tuned LiCoO_2 for Oxygen Evolution Reaction. <i>Journal of the American Chemical Society</i> , 2017, 139, 6270-6276.	13.7	143
133	Three-dimensional stable lithium metal anode with nanoscale lithium islands embedded in ionically conductive solid matrix. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 4613-4618.	7.1	285
134	Thermal Management in Nanofiber-Based Face Mask. <i>Nano Letters</i> , 2017, 17, 3506-3510.	9.1	228
135	Nanoscale perspective: Materials designs and understandings in lithium metal anodes. <i>Nano Research</i> , 2017, 10, 4003-4026.	10.4	130
136	Conformal Lithium Fluoride Protection Layer on Three-Dimensional Lithium by Nonhazardous Gaseous Reagent Freon. <i>Nano Letters</i> , 2017, 17, 3731-3737.	9.1	377
137	Enhancing ionic conductivity in composite polymer electrolytes with well-aligned ceramic nanowires. <i>Nature Energy</i> , 2017, 2, .	39.5	763
138	Solid-State Lithium-Sulfur Batteries Operated at 37 °C with Composites of Nanostructured $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ /Carbon Foam and Polymer. <i>Nano Letters</i> , 2017, 17, 2967-2972.	9.1	384
139	Lithium Metal Anodes with an Adaptive Solid-Liquid Interfacial Protective Layer. <i>Journal of the American Chemical Society</i> , 2017, 139, 4815-4820.	13.7	460
140	An Artificial Solid Electrolyte Interphase with High Ion Conductivity, Mechanical Strength, and Flexibility for Stable Lithium Metal Anodes. <i>Advanced Materials</i> , 2017, 29, 1605531.	21.0	747
141	The path towards sustainable energy. <i>Nature Materials</i> , 2017, 16, 16-22.	27.5	3,288
142	Atomic structure of sensitive battery materials and interfaces revealed by cryo-electron microscopy. <i>Science</i> , 2017, 358, 506-510.	12.6	1,039
143	Strong texturing of lithium metal in batteries. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 12138-12143.	7.1	188
144	Transition-Metal Single Atoms in a Graphene Shell as Active Centers for Highly Efficient Artificial Photosynthesis. <i>CheM</i> , 2017, 3, 950-960.	11.7	326

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145	Transforming from planar to three-dimensional lithium with flowable interphase for solid lithium metal batteries. <i>Science Advances</i> , 2017, 3, eaao0713.	10.3	131
146	Surface Fluorination of Reactive Battery Anode Materials for Enhanced Stability. <i>Journal of the American Chemical Society</i> , 2017, 139, 11550-11558.	13.7	398
147	Warming up human body by nanoporous metallized polyethylene textile. <i>Nature Communications</i> , 2017, 8, 496.	12.8	280
148	Ultrahigh-current density anodes with interconnected Li metal reservoir through overlithiation of mesoporous AlF ₃ framework. <i>Science Advances</i> , 2017, 3, e1701301.	10.3	199
149	Stretchable Lithium-Ion Batteries Enabled by Device-Scaled Wavy Structure and Elastic-Sticky Separator. <i>Advanced Energy Materials</i> , 2017, 7, 1701076.	19.5	158
150	Engineering the surface of LiCoO ₂ electrodes using atomic layer deposition for stable high-voltage lithium ion batteries. <i>Nano Research</i> , 2017, 10, 3754-3764.	10.4	78
151	Design of Complex Nanomaterials for Energy Storage: Past Success and Future Opportunity. <i>Accounts of Chemical Research</i> , 2017, 50, 2895-2905.	15.6	258
152	Stitching h-BN by atomic layer deposition of LiF as a stable interface for lithium metal anode. <i>Science Advances</i> , 2017, 3, eaao3170.	10.3	252
153	A dual-mode textile for human body radiative heating and cooling. <i>Science Advances</i> , 2017, 3, e1700895.	10.3	399
154	Revealing Nanoscale Passivation and Corrosion Mechanisms of Reactive Battery Materials in Gas Environments. <i>Nano Letters</i> , 2017, 17, 5171-5178.	9.1	88
155	Air-stable and freestanding lithium alloy/graphene foil as an alternative to lithium metal anodes. <i>Nature Nanotechnology</i> , 2017, 12, 993-999.	31.5	376
156	Atomic Layer Deposition of Stable LiAlF ₄ Lithium Ion Conductive Interfacial Layer for Stable Cathode Cycling. <i>ACS Nano</i> , 2017, 11, 7019-7027.	14.6	276
157	Stabilized Li ₃ N for efficient battery cathode prelithiation. <i>Energy Storage Materials</i> , 2017, 6, 119-124.	18.0	143
158	Flexible and Stretchable Energy Storage: Recent Advances and Future Perspectives. <i>Advanced Materials</i> , 2017, 29, 1603436.	21.0	872
159	A Prussian blue route to nitrogen-doped graphene aerogels as efficient electrocatalysts for oxygen reduction with enhanced active site accessibility. <i>Nano Research</i> , 2017, 10, 1213-1222.	10.4	73
160	Extending the Life of Lithium-Based Rechargeable Batteries by Reaction of Lithium Dendrites with a Novel Silica Nanoparticle Sandwiched Separator. <i>Advanced Materials</i> , 2017, 29, 1603987.	21.0	202
161	Lithium Metal Anodes: A Recipe for Protection. <i>Joule</i> , 2017, 1, 649-650.	24.0	46
162	Enhanced Intrinsic Catalytic Activity of γ -MnO ₂ by Electrochemical Tuning and Oxygen Vacancy Generation. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 8599-8604.	13.8	107

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163	Lithium Sulfide/Metal Nanocomposite as a High-Capacity Cathode Prelithiation Material. <i>Advanced Energy Materials</i> , 2016, 6, 1600154.	19.5	87
164	Enhanced Intrinsic Catalytic Activity of $\gamma\text{-MnO}_2$ by Electrochemical Tuning and Oxygen Vacancy Generation. <i>Angewandte Chemie</i> , 2016, 128, 8741-8746.	2.0	18
165	Porous MoO_2 Nanosheets as Non-noble Bifunctional Electrocatalysts for Overall Water Splitting. <i>Advanced Materials</i> , 2016, 28, 3785-3790.	21.0	729
166	Nanofiber Air Filters with High-Temperature Stability for Efficient $\text{PM}_{2.5}$ Removal from the Pollution Sources. <i>Nano Letters</i> , 2016, 16, 3642-3649.	9.1	456
167	Graphite-Encapsulated Li-Metal Hybrid Anodes for High-Capacity Li Batteries. <i>CheM</i> , 2016, 1, 287-297.	11.7	247
168	All-Integrated Bifunctional Separator for Li Dendrite Detection via Novel Solution Synthesis of a Thermostable Polyimide Separator. <i>Journal of the American Chemical Society</i> , 2016, 138, 11044-11050.	13.7	170
169	Radiative human body cooling by nanoporous polyethylene textile. <i>Science</i> , 2016, 353, 1019-1023.	12.6	764
170	Composites of a Prussian Blue Analogue and Gelatin-Derived Nitrogen-Doped Carbon-Supported Porous Spinel Oxides as Electrocatalysts for a Zn-Air Battery. <i>Advanced Energy Materials</i> , 2016, 6, 1601052.	19.5	98
171	Rapid water disinfection using vertically aligned MoS_2 nanofilms and visible light. <i>Nature Nanotechnology</i> , 2016, 11, 1098-1104.	31.5	681
172	Improved Lithium Ionic Conductivity in Composite Polymer Electrolytes with Oxide-Ion Conducting Nanowires. <i>ACS Nano</i> , 2016, 10, 11407-11413.	14.6	311
173	Designing high-energy lithium-sulfur batteries. <i>Chemical Society Reviews</i> , 2016, 45, 5605-5634.	38.1	2,008
174	Scalable synthesis of silicon-nanolayer-embedded graphite for high-energy lithium-ion batteries. <i>Nature Energy</i> , 2016, 1, .	39.5	563
175	High-Performance Lithium Metal Negative Electrode with a Soft and Flowable Polymer Coating. <i>ACS Energy Letters</i> , 2016, 1, 1247-1255.	17.4	281
176	Lithium-coated polymeric matrix as a minimum volume-change and dendrite-free lithium metal anode. <i>Nature Communications</i> , 2016, 7, 10992.	12.8	745
177	Growth of conformal graphene cages on micrometre-sized silicon particles as stable battery anodes. <i>Nature Energy</i> , 2016, 1, .	39.5	609
178	Fast and reversible thermoresponsive polymer switching materials for safer batteries. <i>Nature Energy</i> , 2016, 1, .	39.5	253
179	Promises and challenges of nanomaterials for lithium-based rechargeable batteries. <i>Nature Energy</i> , 2016, 1, .	39.5	1,388
180	High-capacity battery cathode prelithiation to offset initial lithium loss. <i>Nature Energy</i> , 2016, 1, .	39.5	265

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181	Selective deposition and stable encapsulation of lithium through heterogeneous seeded growth. <i>Nature Energy</i> , 2016, 1, .	39.5	1,516
182	Balancing surface adsorption and diffusion of lithium-polysulfides on nonconductive oxides for lithium-sulfur battery design. <i>Nature Communications</i> , 2016, 7, 11203.	12.8	1,136
183	Stabilizing Lithium Metal Anodes by Uniform Li-Ion Flux Distribution in Nanochannel Confinement. <i>Journal of the American Chemical Society</i> , 2016, 138, 15443-15450.	13.7	386
184	A Stretchable Graphitic Carbon/Si Anode Enabled by Conformal Coating of a Self-Healing Elastic Polymer. <i>Advanced Materials</i> , 2016, 28, 2455-2461.	21.0	197
185	3D Porous Sponge-Inspired Electrode for Stretchable Lithium-Ion Batteries. <i>Advanced Materials</i> , 2016, 28, 3578-3583.	21.0	247
186	Roll-to-Roll Transfer of Electrospun Nanofiber Film for High-Efficiency Transparent Air Filter. <i>Nano Letters</i> , 2016, 16, 1270-1275.	9.1	289
187	Layered reduced graphene oxide with nanoscale interlayer gaps as a stable host for lithium metal anodes. <i>Nature Nanotechnology</i> , 2016, 11, 626-632.	31.5	1,557
188	In Situ Chemical Synthesis of Lithium Fluoride/Metal Nanocomposite for High Capacity Prelithiation of Cathodes. <i>Nano Letters</i> , 2016, 16, 1497-1501.	9.1	112
189	Composite lithium metal anode by melt infusion of lithium into a 3D conducting scaffold with lithiophilic coating. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 2862-2867.	7.1	755
190	High Ionic Conductivity of Composite Solid Polymer Electrolyte via In Situ Synthesis of Monodispersed SiO ₂ Nanospheres in Poly(ethylene oxide). <i>Nano Letters</i> , 2016, 16, 459-465.	9.1	791
191	Metallurgically lithiated SiO _x anode with high capacity and ambient air compatibility. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 7408-7413.	7.1	145
192	Ionic Conductivity Enhancement of Polymer Electrolytes with Ceramic Nanowire Fillers. <i>Nano Letters</i> , 2015, 15, 2740-2745.	9.1	782
193	Transparent air filter for high-efficiency PM2.5 capture. <i>Nature Communications</i> , 2015, 6, 6205.	12.8	690
194	Artificial Solid Electrolyte Interphase-Protected Li _x Si Nanoparticles: An Efficient and Stable Prelithiation Reagent for Lithium-Ion Batteries. <i>Journal of the American Chemical Society</i> , 2015, 137, 8372-8375.	13.7	297
195	Bifunctional non-noble metal oxide nanoparticle electrocatalysts through lithium-induced conversion for overall water splitting. <i>Nature Communications</i> , 2015, 6, 7261.	12.8	1,006
196	In Situ Electrochemical Oxidation Tuning of Transition Metal Disulfides to Oxides for Enhanced Water Oxidation. <i>ACS Central Science</i> , 2015, 1, 244-251.	11.3	373
197	The synergetic effect of lithium polysulfide and lithium nitrate to prevent lithium dendrite growth. <i>Nature Communications</i> , 2015, 6, 7436.	12.8	1,250
198	A high tap density secondary silicon particle anode fabricated by scalable mechanical pressing for lithium-ion batteries. <i>Energy and Environmental Science</i> , 2015, 8, 2371-2376.	30.8	397

#	ARTICLE	IF	CITATIONS
199	Surface-Coating Regulated Lithiation Kinetics and Degradation in Silicon Nanowires for Lithium Ion Battery. ACS Nano, 2015, 9, 5559-5566.	14.6	118
200	Electrochemical tuning of olivine-type lithium transition-metal phosphates as efficient water oxidation catalysts. Energy and Environmental Science, 2015, 8, 1719-1724.	30.8	167
201	Polymer Nanofiber-Guided Uniform Lithium Deposition for Battery Electrodes. Nano Letters, 2015, 15, 2910-2916.	9.1	495
202	A phosphorene-graphene hybrid material as a high-capacity anode for sodium-ion batteries. Nature Nanotechnology, 2015, 10, 980-985.	31.5	1,287
203	Improving battery safety by early detection of internal shorting with a bifunctional separator. Nature Communications, 2014, 5, 5193.	12.8	301
204	A pomegranate-inspired nanoscale design for large-volume-change lithium battery anodes. Nature Nanotechnology, 2014, 9, 187-192.	31.5	2,109
205	Electrochemical Tuning of MoS ₂ Nanoparticles on Three-Dimensional Substrate for Efficient Hydrogen Evolution. ACS Nano, 2014, 8, 4940-4947.	14.6	566
206	Improving lithium-sulphur batteries through spatial control of sulphur species deposition on a hybrid electrode surface. Nature Communications, 2014, 5, 3943.	12.8	369
207	Two-dimensional layered transition metal disulphides for effective encapsulation of high-capacity lithium sulphide cathodes. Nature Communications, 2014, 5, 5017.	12.8	530
208	Interconnected hollow carbon nanospheres for stable lithium metal anodes. Nature Nanotechnology, 2014, 9, 618-623.	31.5	1,535
209	Ultrathin Two-Dimensional Atomic Crystals as Stable Interfacial Layer for Improvement of Lithium Metal Anode. Nano Letters, 2014, 14, 6016-6022.	9.1	656
210	Sulfur Cathodes with Hydrogen Reduced Titanium Dioxide Inverse Opal Structure. ACS Nano, 2014, 8, 5249-5256.	14.6	297
211	Dry-air-stable lithium silicide-lithium oxide core-shell nanoparticles as high-capacity prelithiation reagents. Nature Communications, 2014, 5, 5088.	12.8	276
212	Electrochemical tuning of layered lithium transition metal oxides for improvement of oxygen evolution reaction. Nature Communications, 2014, 5, 4345.	12.8	411
213	Strong Sulfur Binding with Conducting Magn@li-Phase TiO ₂ @Ti Nanomaterials for Improving Lithium-Sulfur Batteries. Nano Letters, 2014, 14, 5288-5294.	9.1	643
214	Static Electricity Powered Copper Oxide Nanowire Microbicidal Electroporation for Water Disinfection. Nano Letters, 2014, 14, 5603-5608.	9.1	118
215	25th Anniversary Article: Understanding the Lithiation of Silicon and Other Alloying Anodes for Lithium-Ion Batteries. Advanced Materials, 2013, 25, 4966-4985.	21.0	1,233
216	Conducting Nanosponge Electroporation for Affordable and High-Efficiency Disinfection of Bacteria and Viruses in Water. Nano Letters, 2013, 13, 4288-4293.	9.1	160

#	ARTICLE	IF	CITATIONS
217	Rice husks as a sustainable source of nanostructured silicon for high performance Li-ion battery anodes. <i>Scientific Reports</i> , 2013, 3, 1919.	3.3	409
218	Self-healing chemistry enables the stable operation of silicon microparticle anodes for high-energy lithium-ion batteries. <i>Nature Chemistry</i> , 2013, 5, 1042-1048.	13.6	1,031
219	Electrochemical tuning of vertically aligned MoS ₂ nanofilms and its application in improving hydrogen evolution reaction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 19701-19706.	7.1	894
220	Sulphur@TiO ₂ yolk-shell nanoarchitecture with internal void space for long-cycle lithium-sulphur batteries. <i>Nature Communications</i> , 2013, 4, 1331.	12.8	1,884
221	Laser-induced jets of nanoparticles: exploiting air drag forces to select the particle size of nanoparticle arrays. <i>Nanoscale</i> , 2013, 5, 2421.	5.6	4
222	Synthesis of MoS ₂ and MoSe ₂ Films with Vertically Aligned Layers. <i>Nano Letters</i> , 2013, 13, 1341-1347.	9.1	2,036
223	Nanostructured sulfur cathodes. <i>Chemical Society Reviews</i> , 2013, 42, 3018.	38.1	1,778
224	Stable cycling of double-walled silicon nanotube battery anodes through solid electrolyte interphase control. <i>Nature Nanotechnology</i> , 2012, 7, 310-315.	31.5	2,144
225	Studying the Kinetics of Crystalline Silicon Nanoparticle Lithiation with In Situ Transmission Electron Microscopy. <i>Advanced Materials</i> , 2012, 24, 6034-6041.	21.0	529
226	Engineering Empty Space between Si Nanoparticles for Lithium-Ion Battery Anodes. <i>Nano Letters</i> , 2012, 12, 904-909.	9.1	658
227	Giant coercivity in perpendicularly magnetized cobalt monolayer. <i>Applied Physics Letters</i> , 2012, 101, 112405.	3.3	12
228	Improving the cycling stability of silicon nanowire anodes with conducting polymer coatings. <i>Energy and Environmental Science</i> , 2012, 5, 7927.	30.8	265
229	Designing nanostructured Si anodes for high energy lithium ion batteries. <i>Nano Today</i> , 2012, 7, 414-429.	11.9	1,874
230	A Yolk-Shell Design for Stabilized and Scalable Li-Ion Battery Alloy Anodes. <i>Nano Letters</i> , 2012, 12, 3315-3321.	9.1	1,587
231	Highly Conductive, Mechanically Robust, and Electrochemically Inactive TiC/C Nanofiber Scaffold for High-Performance Silicon Anode Batteries. <i>ACS Nano</i> , 2011, 5, 8346-8351.	14.6	122
232	Interconnected Silicon Hollow Nanospheres for Lithium-Ion Battery Anodes with Long Cycle Life. <i>Nano Letters</i> , 2011, 11, 2949-2954.	9.1	1,278
233	Prelithiated Silicon Nanowires as an Anode for Lithium Ion Batteries. <i>ACS Nano</i> , 2011, 5, 6487-6493.	14.6	471
234	Graphene-Wrapped Sulfur Particles as a Rechargeable Lithium-Sulfur Battery Cathode Material with High Capacity and Cycling Stability. <i>Nano Letters</i> , 2011, 11, 2644-2647.	9.1	1,973

#	ARTICLE	IF	CITATIONS
235	Hollow Carbon Nanofiber-Encapsulated Sulfur Cathodes for High Specific Capacity Rechargeable Lithium Batteries. <i>Nano Letters</i> , 2011, 11, 4462-4467.	9.1	1,194
236	Silicon-Carbon Nanotube Coaxial Sponge as Li-Ion Anodes with High Areal Capacity. <i>Advanced Energy Materials</i> , 2011, 1, 523-527.	19.5	220
237	LiMn _{1-x} Fe _x PO ₄ Nanorods Grown on Graphene Sheets for Ultrahigh-Rate Performance Lithium Ion Batteries. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 7364-7368.	13.8	262
238	Surface chemistry and morphology of the solid electrolyte interphase on silicon nanowire lithium-ion battery anodes. <i>Journal of Power Sources</i> , 2009, 189, 1132-1140.	7.8	559
239	Impedance Analysis of Silicon Nanowire Lithium Ion Battery Anodes. <i>Journal of Physical Chemistry C</i> , 2009, 113, 11390-11398.	3.1	510
240	High-performance lithium battery anodes using silicon nanowires. <i>Nature Nanotechnology</i> , 2008, 3, 31-35.	31.5	5,860
241	High Capacity Li Ion Battery Anodes Using Ge Nanowires. <i>Nano Letters</i> , 2008, 8, 307-309.	9.1	855