

Chaojiang Niu

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74
papers

7,582
citations

47
h-index

75
g-index

75
ext. papers

9,397
ext. citations

17.2
avg, IF

6.1
L-index

#	Paper	IF	Citations
74	General Oriented Formation of Carbon Nanotubes from Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2017 , 139, 8212-8221	16.4	598
73	Monolithic solid-electrolyte interphases formed in fluorinated orthoformate-based electrolytes minimize Li depletion and pulverization. <i>Nature Energy</i> , 2019 , 4, 796-805	62.3	325
72	General synthesis of complex nanotubes by gradient electrospinning and controlled pyrolysis. <i>Nature Communications</i> , 2015 , 6, 7402	17.4	320
71	Manganese oxide/carbon yolk-shell nanorod anodes for high capacity lithium batteries. <i>Nano Letters</i> , 2015 , 15, 738-44	11.5	318
70	SnO ₂ Quantum Dots@Graphene Oxide as a High-Rate and Long-Life Anode Material for Lithium-Ion Batteries. <i>Small</i> , 2016 , 12, 588-94	11	307
69	Self-smoothing anode for achieving high-energy lithium metal batteries under realistic conditions. <i>Nature Nanotechnology</i> , 2019 , 14, 594-601	28.7	300
68	Earth Abundant Fe/Mn-Based Layered Oxide Interconnected Nanowires for Advanced K-Ion Full Batteries. <i>Nano Letters</i> , 2017 , 17, 544-550	11.5	297
67	High-energy lithium metal pouch cells with limited anode swelling and long stable cycles. <i>Nature Energy</i> , 2019 , 4, 551-559	62.3	283
66	Enabling High-Voltage Lithium-Metal Batteries under Practical Conditions. <i>Joule</i> , 2019 , 3, 1662-1676	27.8	272
65	High-Efficiency Lithium Metal Batteries with Fire-Retardant Electrolytes. <i>Joule</i> , 2018 , 2, 1548-1558	27.8	257
64	Critical Parameters for Evaluating Coin Cells and Pouch Cells of Rechargeable Li-Metal Batteries. <i>Joule</i> , 2019 , 3, 1094-1105	27.8	219
63	VO ₂ nanowires assembled into hollow microspheres for high-rate and long-life lithium batteries. <i>Nano Letters</i> , 2014 , 14, 2873-8	11.5	210
62	Self-sacrificed synthesis of three-dimensional Na ₃ V ₂ (PO ₄) ₃ nanofiber network for high-rate sodium-ion full batteries. <i>Nano Energy</i> , 2016 , 25, 145-153	17.1	186
61	Nanowire templated semihollow bicontinuous graphene scrolls: designed construction, mechanism, and enhanced energy storage performance. <i>Journal of the American Chemical Society</i> , 2013 , 135, 18176-82	16.4	168
60	Advances in metal-organic framework coatings: versatile synthesis and broad applications. <i>Chemical Society Reviews</i> , 2020 , 49, 3142-3186	58.5	167
59	Advances in Structure and Property Optimizations of Battery Electrode Materials. <i>Joule</i> , 2017 , 1, 522-547	27.8	163
58	High-Concentration Ether Electrolytes for Stable High-Voltage Lithium Metal Batteries. <i>ACS Energy Letters</i> , 2019 , 4, 896-902	20.1	160

57	Fast Ionic Diffusion-Enabled Nanoflake Electrode by Spontaneous Electrochemical Pre-Intercalation for High-Performance Supercapacitor. <i>Scientific Reports</i> , 2013 , 3,	4.9	159
56	Novel K ₃ V ₂ (PO ₄) ₃ /C Bundled Nanowires as Superior Sodium-Ion Battery Electrode with Ultrahigh Cycling Stability. <i>Advanced Energy Materials</i> , 2015 , 5, 1500716	21.8	140
55	Heterogeneous branched core-shell SnO ₂ /PANI nanorod arrays with mechanical integrity and three dimensional electron transport for lithium batteries. <i>Nano Energy</i> , 2014 , 8, 196-204	17.1	127
54	Vanadium-Based Nanomaterials: A Promising Family for Emerging Metal-Ion Batteries. <i>Advanced Functional Materials</i> , 2020 , 30, 1904398	15.6	123
53	Recent Advances in Rational Electrode Designs for High-Performance Alkaline Rechargeable Batteries. <i>Advanced Functional Materials</i> , 2019 , 29, 1807847	15.6	113
52	Polycrystalline soft carbon semi-hollow microrods as anode for advanced K-ion full batteries. <i>Nanoscale</i> , 2017 , 9, 18216-18222	7.7	113
51	Suppressing Lithium Dendrite Growth by Metallic Coating on a Separator. <i>Advanced Functional Materials</i> , 2017 , 27, 1704391	15.6	104
50	Upraising the O 2p Orbital by Integrating Ni with MoO ₂ for Accelerating Hydrogen Evolution Kinetics. <i>ACS Catalysis</i> , 2019 , 9, 2275-2285	13.1	103
49	Graphene Oxide Wrapped Amorphous Copper Vanadium Oxide with Enhanced Capacitive Behavior for High-Rate and Long-Life Lithium-Ion Battery Anodes. <i>Advanced Science</i> , 2015 , 2, 1500154	13.6	100
48	Interface-modulated fabrication of hierarchical yolk-shell Co ₃ O ₄ /C dodecahedrons as stable anodes for lithium and sodium storage. <i>Nano Research</i> , 2017 , 10, 2364-2376	10	91
47	Alkaline earth metal vanadates as sodium-ion battery anodes. <i>Nature Communications</i> , 2017 , 8, 460	17.4	90
46	Identification of Phase Control of Carbon-Confined Nb ₂ O ₅ Nanoparticles toward High-Performance Lithium Storage. <i>Advanced Energy Materials</i> , 2019 , 9, 1802695	21.8	88
45	Balancing interfacial reactions to achieve long cycle life in high-energy lithium metal batteries. <i>Nature Energy</i> , 2021 , 6, 723-732	62.3	81
44	Role of inner solvation sheath within salt-solvent complexes in tailoring electrode/electrolyte interphases for lithium metal batteries. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 28603-28613	11.5	76
43	Cathodic polarization suppressed sodium-ion full cell with a 3.3 V high-voltage. <i>Nano Energy</i> , 2016 , 28, 216-223	17.1	76
42	Thermal Induced Strain Relaxation of 1D Iron Oxide for Solid Electrolyte Interphase Control and Lithium Storage Improvement. <i>Advanced Energy Materials</i> , 2017 , 7, 1601582	21.8	70
41	Deep Reconstruction of Nickel-Based Precatalysts for Water Oxidation Catalysis. <i>ACS Energy Letters</i> , 2019 , 4, 2585-2592	20.1	69
40	Reconstruction-Determined Alkaline Water Electrolysis at Industrial Temperatures. <i>Advanced Materials</i> , 2020 , 32, e2001136	24	67

- 39 Nonflammable Electrolytes for Lithium Ion Batteries Enabled by Ultraconformal Passivation Interphases. *ACS Energy Letters*, **2019**, 4, 2529-2534 20.1 61
- 38 Single-Nanowire Electrochemical Probe Detection for Internally Optimized Mechanism of Porous Graphene in Electrochemical Devices. *Nano Letters*, **2016**, 16, 1523-9 11.5 59
- 37 Reaction heterogeneity in practical high-energy lithium-sulfur pouch cells. *Energy and Environmental Science*, **2020**, 13, 3620-3632 35.4 59
- 36 Carbon-supported and nanosheet-assembled vanadium oxide microspheres for stable lithium-ion battery anodes. *Nano Research*, **2016**, 9, 128-138 10 57
- 35 A facile synthesis of three dimensional graphene sponge composited with sulfur nanoparticles for flexible Li-S cathodes. *Physical Chemistry Chemical Physics*, **2016**, 18, 22146-53 3.6 56
- 34 Substrate-assisted self-organization of radial AgVO₃ nanowire clusters for high rate rechargeable lithium batteries. *Nano Letters*, **2012**, 12, 4668-73 11.5 54
- 33 A synergistic effect between layer surface configurations and K ions of potassium vanadate nanowires for enhanced energy storage performance. *Journal of Materials Chemistry A*, **2016**, 4, 4893-4899 13 54
- 32 Inhibiting effect of Na⁺ pre-intercalation in MoO₃ nanobelts with enhanced electrochemical performance. *Nano Energy*, **2015**, 15, 145-152 17.1 53
- 31 An electrospun hierarchical LiV₃O₈ nanowire-in-network for high-rate and long-life lithium batteries. *Journal of Materials Chemistry A*, **2015**, 3, 19850-19856 13 53
- 30 Three dimensional V₂O₅/NaV₆O₁₅ hierarchical heterostructures: Controlled synthesis and synergistic effect investigated by in situ X-ray diffraction. *Nano Energy*, **2016**, 27, 147-156 17.1 50
- 29 Self-template synthesis of hollow shell-controlled Li₃VO₄ as a high-performance anode for lithium-ion batteries. *Journal of Materials Chemistry A*, **2015**, 3, 18839-18842 13 48
- 28 New-type K_{0.7}Fe_{0.5}Mn_{0.5}O₂ cathode with an expanded and stabilized interlayer structure for high-capacity sodium-ion batteries. *Nano Energy*, **2017**, 35, 71-78 17.1 47
- 27 General Oriented Synthesis of Precise Carbon-Confined Nanostructures by Low-Pressure Vapor Superassembly and Controlled Pyrolysis. *Nano Letters*, **2017**, 17, 7773-7781 11.5 46
- 26 The Young's modulus of high-aspect-ratio carbon/carbon nanotube composite microcantilevers by experimental and modeling validation. *Applied Physics Letters*, **2015**, 106, 111908 3.4 43
- 25 Highly Reversible Sodium Ion Batteries Enabled by Stable Electrolyte-Electrode Interphases. *ACS Energy Letters*, **2020**, 5, 3212-3220 20.1 40
- 24 Effects of fluorinated solvents on electrolyte solvation structures and electrode/electrolyte interphases for lithium metal batteries. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118, 11811-11816 11.5 39
- 23 Zinc Pyrovanadate Nanoplates Embedded in Graphene Networks with Enhanced Electrochemical Performance. *Industrial & Engineering Chemistry Research*, **2016**, 55, 2992-2999 3.9 38
- 22 Realizing stable lithium and sodium storage with high areal capacity using novel nanosheet-assembled compact CaV₄O₉ microflowers. *Nano Energy*, **2018**, 50, 606-614 17.1 37

21	Interface-modulated approach toward multilevel metal oxide nanotubes for lithium-ion batteries and oxygen reduction reaction. <i>Nano Research</i> , 2016 , 9, 2445-2457	10	32
20	General oriented assembly of uniform carbon-confined metal oxide nanodots on graphene for stable and ultrafast lithium storage. <i>Materials Horizons</i> , 2018 , 5, 78-85	14.4	32
19	Ultralong H2V3O8 nanowire bundles as a promising cathode for lithium batteries. <i>New Journal of Chemistry</i> , 2014 , 38, 2075-2080	3.6	31
18	Good Practices for Rechargeable Lithium Metal Batteries. <i>Journal of the Electrochemical Society</i> , 2019 , 166, A4141-A4149	3.9	26
17	In operando observation of temperature-dependent phase evolution in lithium-incorporation olivine cathode. <i>Nano Energy</i> , 2016 , 22, 406-413	17.1	24
16	Optimization of fluorinated orthoformate based electrolytes for practical high-voltage lithium metal batteries. <i>Energy Storage Materials</i> , 2021 , 34, 76-84	19.4	23
15	Polyoxomolybdate-derived carbon-encapsulated multicomponent electrocatalysts for synergistically boosting hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 17874-17881	13	23
14	Evolution of the rate-limiting step: From thin film to thick Ni-rich cathodes. <i>Journal of Power Sources</i> , 2020 , 454, 227966	8.9	21
13	Gradient-temperature hydrothermal fabrication of hierarchical Zn ₂ SnO ₄ hollow boxes stimulated by thermodynamic phase transformation. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 14095-14100	13	18
12	A porous nickel cyclotetraphosphate nanosheet as a new acid-stable electrocatalyst for efficient hydrogen evolution. <i>Nanoscale</i> , 2018 , 10, 9856-9861	7.7	17
11	A Synergistic Na-Mn-O Composite Cathodes for High-Capacity Na-Ion Storage. <i>Advanced Energy Materials</i> , 2018 , 8, 1802180	21.8	15
10	Electrolyte Regulating toward Stabilization of Cobalt-Free Ultrahigh-Nickel Layered Oxide Cathode in Lithium-Ion Batteries. <i>ACS Energy Letters</i> , 2021 , 6, 1324-1332	20.1	13
9	Toward the Practical Use of Cobalt-Free Lithium-Ion Batteries by an Advanced Ether-Based Electrolyte. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 44339-44347	9.5	13
8	Large-Scale Integration of Zinc Metasilicate Interface Layer Guiding Well-Regulated Zn Deposition.. <i>Advanced Materials</i> , 2022 , e2202188	24	13
7	Optimization of Magnesium-Doped Lithium Metal Anode for High Performance Lithium Metal Batteries through Modeling and Experiment. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 16506-16513	16.4	10
6	High-Energy Lateral Mapping (HELM) Studies of Inhomogeneity and Failure Mechanisms in NMC622/Li Pouch Cells. <i>Chemistry of Materials</i> , 2021 , 33, 2378-2386	9.6	7
5	Communication Pressure Evolution in Constrained Rechargeable Lithium-metal Pouch Cells. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 020511	3.9	6
4	Systematic Evaluation of Carbon Hosts for High-Energy Rechargeable Lithium-Metal Batteries. <i>ACS Energy Letters</i> , 1550-1559	20.1	5

3	Niobium oxyphosphate nanosheet assembled two-dimensional anode material for enhanced lithium storage. <i>Journal of Energy Chemistry</i> , 2021 , 53, 268-275	12	5
2	Optimization of Magnesium-Doped Lithium Metal Anode for High Performance Lithium Metal Batteries through Modeling and Experiment. <i>Angewandte Chemie</i> , 2021 , 133, 16642-16649	3.6	4
1	P-doped germanium nanowires with Fano-broadening in Raman spectrum. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2016 , 31, 52-57	1	4