

Chaojiang Niu

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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 | Large-Scale Integration of Zinc Metasilicate Interface Layer Guiding Well-Regulated Zn Deposition.. <i>Advanced Materials</i> , 2022 , e2202188 | 24 | 13 |
| 73 | 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 |
| 72 | 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 |
| 71 | 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 |
| 70 | 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 |
| 69 | 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, 10} | 16.4 | 10 |
| 68 | Niobium oxyphosphate nanosheet assembled two-dimensional anode material for enhanced lithium storage. <i>Journal of Energy Chemistry</i> , 2021 , 53, 268-275 | 12 | 5 |
| 67 | 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 |
| 66 | Effects of fluorinated solvents on electrolyte solvation structures and electrode/electrolyte interphases for lithium metal batteries. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118, | 11.5 | 39 |
| 65 | 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 |
| 64 | 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 |
| 63 | 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 |
| 62 | Communication Pressure Evolution in Constrained Rechargeable Lithium-metal Pouch Cells. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 020511 | 3.9 | 6 |
| 61 | Advances in metal-organic framework coatings: versatile synthesis and broad applications. <i>Chemical Society Reviews</i> , 2020 , 49, 3142-3186 | 58.5 | 167 |
| 60 | Vanadium-Based Nanomaterials: A Promising Family for Emerging Metal-Ion Batteries. <i>Advanced Functional Materials</i> , 2020 , 30, 1904398 | 15.6 | 123 |
| 59 | Reconstruction-Determined Alkaline Water Electrolysis at Industrial Temperatures. <i>Advanced Materials</i> , 2020 , 32, e2001136 | 24 | 67 |
| 58 | Reaction heterogeneity in practical high-energy lithium-sulfur pouch cells. <i>Energy and Environmental Science</i> , 2020 , 13, 3620-3632 | 35.4 | 59 |

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| 57 | Highly Reversible Sodium Ion Batteries Enabled by Stable Electrolyte-Electrode Interphases. <i>ACS Energy Letters</i> , 2020 , 5, 3212-3220 | 20.1 | 40 |
| 56 | 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 |
| 55 | Nonflammable Electrolytes for Lithium Ion Batteries Enabled by Ultraconformal Passivation Interphases. <i>ACS Energy Letters</i> , 2019 , 4, 2529-2534 | 20.1 | 61 |
| 54 | Deep Reconstruction of Nickel-Based Precatalysts for Water Oxidation Catalysis. <i>ACS Energy Letters</i> , 2019 , 4, 2585-2592 | 20.1 | 69 |
| 53 | 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 |
| 52 | 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 |
| 51 | Self-smoothing anode for achieving high-energy lithium metal batteries under realistic conditions. <i>Nature Nanotechnology</i> , 2019 , 14, 594-601 | 28.7 | 300 |
| 50 | High-Concentration Ether Electrolytes for Stable High-Voltage Lithium Metal Batteries. <i>ACS Energy Letters</i> , 2019 , 4, 896-902 | 20.1 | 160 |
| 49 | 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 |
| 48 | Recent Advances in Rational Electrode Designs for High-Performance Alkaline Rechargeable Batteries. <i>Advanced Functional Materials</i> , 2019 , 29, 1807847 | 15.6 | 113 |
| 47 | Enabling High-Voltage Lithium-Metal Batteries under Practical Conditions. <i>Joule</i> , 2019 , 3, 1662-1676 | 27.8 | 272 |
| 46 | Critical Parameters for Evaluating Coin Cells and Pouch Cells of Rechargeable Li-Metal Batteries. <i>Joule</i> , 2019 , 3, 1094-1105 | 27.8 | 219 |
| 45 | Good Practices for Rechargeable Lithium Metal Batteries. <i>Journal of the Electrochemical Society</i> , 2019 , 166, A4141-A4149 | 3.9 | 26 |
| 44 | 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 |
| 43 | Realizing stable lithium and sodium storage with high areal capacity using novel nanosheet-assembled compact CaV ₄ O ₉ microflowers. <i>Nano Energy</i> , 2018 , 50, 606-614 | 17.1 | 37 |
| 42 | 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 |
| 41 | A Synergistic Na-Mn-O Composite Cathodes for High-Capacity Na-Ion Storage. <i>Advanced Energy Materials</i> , 2018 , 8, 1802180 | 21.8 | 15 |
| 40 | Polyoxomolybdate-derived carbon-encapsulated multicomponent electrocatalysts for synergistically boosting hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 17874-17881 | 13 | 23 |

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| 39 | High-Efficiency Lithium Metal Batteries with Fire-Retardant Electrolytes. <i>Joule</i> , 2018 , 2, 1548-1558 | 27.8 | 257 |
| 38 | 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 |
| 37 | 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 |
| 36 | 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 |
| 35 | New-type K _{0.7} Fe _{0.5} Mn _{0.5} O ₂ cathode with an expanded and stabilized interlayer structure for high-capacity sodium-ion batteries. <i>Nano Energy</i> , 2017 , 35, 71-78 | 17.1 | 47 |
| 34 | 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 |
| 33 | Suppressing Lithium Dendrite Growth by Metallic Coating on a Separator. <i>Advanced Functional Materials</i> , 2017 , 27, 1704391 | 15.6 | 104 |
| 32 | Advances in Structure and Property Optimizations of Battery Electrode Materials. <i>Joule</i> , 2017 , 1, 522-547 | 7.8 | 163 |
| 31 | Alkaline earth metal vanadates as sodium-ion battery anodes. <i>Nature Communications</i> , 2017 , 8, 460 | 17.4 | 90 |
| 30 | General Oriented Synthesis of Precise Carbon-Confined Nanostructures by Low-Pressure Vapor Superassembly and Controlled Pyrolysis. <i>Nano Letters</i> , 2017 , 17, 7773-7781 | 11.5 | 46 |
| 29 | Polycrystalline soft carbon semi-hollow microrods as anode for advanced K-ion full batteries. <i>Nanoscale</i> , 2017 , 9, 18216-18222 | 7.7 | 113 |
| 28 | 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 |
| 27 | 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 |
| 26 | 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 |
| 25 | 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 |
| 24 | Zinc Pyrovanadate Nanoplates Embedded in Graphene Networks with Enhanced Electrochemical Performance. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 2992-2999 | 3.9 | 38 |
| 23 | Single-Nanowire Electrochemical Probe Detection for Internally Optimized Mechanism of Porous Graphene in Electrochemical Devices. <i>Nano Letters</i> , 2016 , 16, 1523-9 | 11.5 | 59 |
| 22 | Carbon-supported and nanosheet-assembled vanadium oxide microspheres for stable lithium-ion battery anodes. <i>Nano Research</i> , 2016 , 9, 128-138 | 10 | 57 |

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| 21 | Three dimensional V ₂ O ₅ /NaV ₆ O ₁₅ hierarchical heterostructures: Controlled synthesis and synergistic effect investigated by in situ X-ray diffraction. <i>Nano Energy</i> , 2016 , 27, 147-156 | 17.1 | 50 |
| 20 | A facile synthesis of three dimensional graphene sponge composited with sulfur nanoparticles for flexible Li-S cathodes. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 22146-53 | 3.6 | 56 |
| 19 | In operando observation of temperature-dependent phase evolution in lithium-incorporation olivine cathode. <i>Nano Energy</i> , 2016 , 22, 406-413 | 17.1 | 24 |
| 18 | A synergistic effect between layer surface configurations and K ions of potassium vanadate nanowires for enhanced energy storage performance. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 4893-4899 | 17.1 | 54 |
| 17 | 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 |
| 16 | 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 |
| 15 | Inhibiting effect of Na ⁺ pre-intercalation in MoO ₃ nanobelts with enhanced electrochemical performance. <i>Nano Energy</i> , 2015 , 15, 145-152 | 17.1 | 53 |
| 14 | The Young's modulus of high-aspect-ratio carbon/carbon nanotube composite microcantilevers by experimental and modeling validation. <i>Applied Physics Letters</i> , 2015 , 106, 111908 | 3.4 | 43 |
| 13 | Self-template synthesis of hollow shell-controlled Li ₃ VO ₄ as a high-performance anode for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 18839-18842 | 13 | 48 |
| 12 | An electrospun hierarchical LiV ₃ O ₈ nanowire-in-network for high-rate and long-life lithium batteries. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 19850-19856 | 13 | 53 |
| 11 | Manganese oxide/carbon yolk-shell nanorod anodes for high capacity lithium batteries. <i>Nano Letters</i> , 2015 , 15, 738-44 | 11.5 | 318 |
| 10 | 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 |
| 9 | 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 |
| 8 | General synthesis of complex nanotubes by gradient electrospinning and controlled pyrolysis. <i>Nature Communications</i> , 2015 , 6, 7402 | 17.4 | 320 |
| 7 | Ultralong H ₂ V ₃ O ₈ nanowire bundles as a promising cathode for lithium batteries. <i>New Journal of Chemistry</i> , 2014 , 38, 2075-2080 | 3.6 | 31 |
| 6 | 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 |
| 5 | Heterogeneous branched core-shell SnO ₂ @ANI nanorod arrays with mechanical integrity and three dimensional electron transport for lithium batteries. <i>Nano Energy</i> , 2014 , 8, 196-204 | 17.1 | 127 |
| 4 | 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 |

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| 3 | Fast Ionic Diffusion-Enabled Nanoflake Electrode by Spontaneous Electrochemical Pre-Intercalation for High-Performance Supercapacitor. <i>Scientific Reports</i> , 2013 , 3, | 4.9 | 159 |
| 2 | Substrate-assisted self-organization of radial AgVO_3 nanowire clusters for high rate rechargeable lithium batteries. <i>Nano Letters</i> , 2012 , 12, 4668-73 | 11.5 | 54 |
| 1 | Systematic Evaluation of Carbon Hosts for High-Energy Rechargeable Lithium-Metal Batteries. <i>ACS Energy Letters</i> , 1550-1559 | 20.1 | 5 |