Chaojiang Niu

List of Publications by Year
in descending order

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75 papers	11,454 citations	34076 52 h-index	76872 74 g-index
75 all docs	75 docs citations	75 times ranked	11150 citing authors

#	Article	IF	Citations
1	Amine-Wetting-Enabled Dendrite-Free Potassium Metal Anode. ACS Nano, 2022, 16, 7291-7300.	7.3	36
2	Largeâ€Scale Integration of a Zinc Metasilicate Interface Layer Guiding Wellâ€Regulated Zn Deposition. Advanced Materials, 2022, 34, e2202188.	11.1	86
3	Niobium oxyphosphate nanosheet assembled two-dimensional anode material for enhanced lithium storage. Journal of Energy Chemistry, 2021, 53, 268-275.	7.1	14
4	Optimization of fluorinated orthoformate based electrolytes for practical high-voltage lithium metal batteries. Energy Storage Materials, 2021, 34, 76-84.	9.5	65
5	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, .	3.3	131
6	High-Energy Lateral Mapping (HELM) Studies of Inhomogeneity and Failure Mechanisms in NMC622/Li Pouch Cells. Chemistry of Materials, 2021, 33, 2378-2386.	3.2	16
7	Electrolyte Regulating toward Stabilization of Cobalt-Free Ultrahigh-Nickel Layered Oxide Cathode in Lithium-Ion Batteries. ACS Energy Letters, 2021, 6, 1324-1332.	8.8	53
8	Optimization of Magnesiumâ€Doped Lithium Metal Anode for High Performance Lithium Metal Batteries through Modeling and Experiment. Angewandte Chemie, 2021, 133, 16642-16649.	1.6	5
9	Balancing interfacial reactions to achieve long cycle life in high-energy lithium metal batteries. Nature Energy, 2021, 6, 723-732.	19.8	285
10	Optimization of Magnesiumâ€Doped Lithium Metal Anode for High Performance Lithium Metal Batteries through Modeling and Experiment. Angewandte Chemie - International Edition, 2021, 60, 16506-16513.	7.2	28
11	Toward the Practical Use of Cobalt-Free Lithium-Ion Batteries by an Advanced Ether-Based Electrolyte. ACS Applied Materials & Interfaces, 2021, 13, 44339-44347.	4.0	24
12	Vanadiumâ€Based Nanomaterials: A Promising Family for Emerging Metalâ€Ion Batteries. Advanced Functional Materials, 2020, 30, 1904398.	7.8	262
13	Reconstructionâ€Determined Alkaline Water Electrolysis at Industrial Temperatures. Advanced Materials, 2020, 32, e2001136.	11.1	177
14	Reaction heterogeneity in practical high-energy lithiumâ€“sulfur pouch cells. Energy and Environmental Science, 2020, 13, 3620-3632.	15.6	127
15	Highly Reversible Sodium Ion Batteries Enabled by Stable Electrolyte-Electrode Interphases. ACS Energy Letters, 2020, 5, 3212-3220.	8.8	97
16	Role of inner solvation sheath within saltâ€“solvent complexes in tailoring electrode/electrolyte interphases for lithium metal batteries. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 28603-28613.	3.3	191
17	Evolution of the rate-limiting step: From thin film to thick Ni-rich cathodes. Journal of Power Sources, 2020, 454, 227966.	4.0	35
18	Communicationâ€"Pressure Evolution in Constrained Rechargeable Lithium-metal Pouch Cells. Journal of the Electrochemical Society, 2020, 167, 020511.	1.3	7

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19	Advances in metalâ€“organic framework coatings: versatile synthesis and broad applications. Chemical Society Reviews, 2020, 49, 3142-3186.	18.7	327
20	Enabling High-Voltage Lithium-Metal Batteries under Practical Conditions. Joule, 2019, 3, 1662-1676.	11.7	598
21	Monolithic solidâ€“electrolyte interphases formed in fluorinated orthoformate-based electrolytes minimize Li depletion and pulverization. Nature Energy, 2019, 4, 796-805.	19.8	621
22	Nonflammable Electrolytes for Lithium Ion Batteries Enabled by Ultraconformal Passivation Interphases. ACS Energy Letters, 2019, 4, 2529-2534.	8.8	112
23	Deep Reconstruction of Nickel-Based Precatalysts for Water Oxidation Catalysis. ACS Energy Letters, 2019, 4, 2585-2592.	8.8	137
24	Upraising the O 2p Orbital by Integrating Ni with MoO₂ for Accelerating Hydrogen Evolution Kinetics. ACS Catalysis, 2019, 9, 2275-2285.	5.5	165
25	High-energy lithium metal pouch cells with limited anode swelling and long stable cycles. Nature Energy, 2019, 4, 551-559.	19.8	492
26	Self-smoothing anode for achieving high-energy lithium metal batteries under realistic conditions. Nature Nanotechnology, 2019, 14, 594-601.	15.6	451
27	High-Concentration Ether Electrolytes for Stable High-Voltage Lithium Metal Batteries. ACS Energy Letters, 2019, 4, 896-902.	8.8	302
28	Identification of Phase Control of Carbonâ€Confined Nb₂O₅ Nanoparticles toward Highâ€Performance Lithium Storage. Advanced Energy Materials, 2019, 9, 1802695.	10.2	161
29	Recent Advances in Rational Electrode Designs for Highâ€Performance Alkaline Rechargeable Batteries. Advanced Functional Materials, 2019, 29, 1807847.	7.8	152
30	Critical Parameters for Evaluating Coin Cells and Pouch Cells of Rechargeable Li-Metal Batteries. Joule, 2019, 3, 1094-1105.	11.7	358
31	Good Practices for Rechargeable Lithium Metal Batteries. Journal of the Electrochemical Society, 2019, 166, A4141-A4149.	1.3	42
32	A porous nickel cyclotetraphosphate nanosheet as a new acid-stable electrocatalyst for efficient hydrogen evolution. Nanoscale, 2018, 10, 9856-9861.	2.8	29
33	General oriented assembly of uniform carbon-confined metal oxide nanodots on graphene for stable and ultrafast lithium storage. Materials Horizons, 2018, 5, 78-85.	6.4	35
34	A Synergistic Naâ€Mnâ€O Composite Cathodes for Highâ€Capacity Naâ€Ion Storage. Advanced Energy Materials, 2018, 8, 1802180.	10.2	21
35	Polyoxomolybdate-derived carbon-encapsulated multicomponent electrocatalysts for synergistically boosting hydrogen evolution. Journal of Materials Chemistry A, 2018, 6, 17874-17881.	5.2	30
36	High-Efficiency Lithium Metal Batteries with Fire-Retardant Electrolytes. Joule, 2018, 2, 1548-1558.	11.7	436

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37	Realizing stable lithium and sodium storage with high areal capacity using novel nanosheet-assembled compact CaV4O9 microflowers. Nano Energy, 2018, 50, 606-614.	8.2	47
38	Interface-modulated fabrication of hierarchical yolkâ€"shell Co3O4/C dodecahedrons as stable anodes for lithium and sodium storage. Nano Research, 2017, 10, 2364-2376.	5.8	113
39	Thermal Induced Strain Relaxation of 1D Iron Oxide for Solid Electrolyte Interphase Control and Lithium Storage Improvement. Advanced Energy Materials, 2017, 7, 1601582.	10.2	73
40	General Oriented Formation of Carbon Nanotubes from Metalâ€"Organic Frameworks. Journal of the American Chemical Society, 2017, 139, 8212-8221.	6.6	777
41	New-type K0.7Fe0.5Mn0.5O2 cathode with an expanded and stabilized interlayer structure for high-capacity sodium-ion batteries. Nano Energy, 2017, 35, 71-78.	8.2	60
42	Earth Abundant Fe/Mn-Based Layered Oxide Interconnected Nanowires for Advanced K-Ion Full Batteries. Nano Letters, 2017, 17, 544-550.	4.5	356
43	Suppressing Lithium Dendrite Growth by Metallic Coating on a Separator. Advanced Functional Materials, 2017, 27, 1704391.	7.8	141
44	Advances in Structure and Property Optimizations of Battery Electrode Materials. Joule, 2017, 1, 522-547.	11.7	219
45	Alkaline earth metal vanadates as sodium-ion battery anodes. Nature Communications, 2017, 8, 460.	5.8	136
46	General Oriented Synthesis of Precise Carbon-Confined Nanostructures by Low-Pressure Vapor Superassembly and Controlled Pyrolysis. Nano Letters, 2017, 17, 7773-7781.	4.5	53
47	Polycrystalline soft carbon semi-hollow microrods as anode for advanced K-ion full batteries. Nanoscale, 2017, 9, 18216-18222.	2.8	150
48	Three dimensional V2O5/NaV6O15 hierarchical heterostructures: Controlled synthesis and synergistic effect investigated by in situ X-ray diffraction. Nano Energy, 2016, 27, 147-156.	8.2	61
49	A facile synthesis of three dimensional graphene sponge composited with sulfur nanoparticles for flexible Liâ€"S cathodes. Physical Chemistry Chemical Physics, 2016, 18, 22146-22153.	1.3	63
50	In operando observation of temperature-dependent phase evolution in lithium-incorporation olivine cathode. Nano Energy, 2016, 22, 406-413.	8.2	31
51	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.	5.2	65
52	P-doped germanium nanowires with Fano-broadening in Raman spectrum. Journal Wuhan University of Technology, Materials Science Edition, 2016, 31, 52-57.	0.4	4
53	Self-sacrificed synthesis of three-dimensional Na3V2(PO4)3 nanofiber network for high-rate sodiumâ€"ion full batteries. Nano Energy, 2016, 25, 145-153.	8.2	230
54	Interface-modulated approach toward multilevel metal oxide nanotubes for lithium-ion batteries and oxygen reduction reaction. Nano Research, 2016, 9, 2445-2457.	5.8	40

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55	Cathodic polarization suppressed sodium-ion full cell with a 3.3 V high-voltage. Nano Energy, 2016, 28, 216-223.	8.2	97
56	Gradient-temperature hydrothermal fabrication of hierarchical Zn₂SnO₄ hollow boxes stimulated by thermodynamic phase transformation. Journal of Materials Chemistry A, 2016, 4, 14095-14100.	5.2	23
57	SnO₂ Quantum Dots@Graphene Oxide as a Highâ€Rate and Longâ€Life Anode Material for Lithiumâ€Ion Batteries. Small, 2016, 12, 588-594.	5.2	338
58	Zinc Pyrovanadate Nanoplates Embedded in Graphene Networks with Enhanced Electrochemical Performance. Industrial & Engineering Chemistry Research, 2016, 55, 2992-2999.	1.8	47
59	Single-Nanowire Electrochemical Probe Detection for Internally Optimized Mechanism of Porous Graphene in Electrochemical Devices. Nano Letters, 2016, 16, 1523-1529.	4.5	72
60	Carbon-supported and nanosheet-assembled vanadium oxide microspheres for stable lithium-ion battery anodes. Nano Research, 2016, 9, 128-138.	5.8	64
61	Graphene Oxide Wrapped Amorphous Copper Vanadium Oxide with Enhanced Capacitive Behavior for Highâ€Rate and Longâ€Life Lithiumâ€Ion Battery Anodes. Advanced Science, 2015, 2, 1500154.	5.6	114
62	Novel K₃V₂(PO₄)₃/C Bundled Nanowires as Superior Sodiumâ€Ion Battery Electrode with Ultrahigh Cycling Stability. Advanced Energy Materials, 2015, 5, 1500716.	10.2	150
63	General synthesis of complex nanotubes by gradient electrospinning and controlled pyrolysis. Nature Communications, 2015, 6, 7402.	5.8	370
64	Inhibiting effect of Na+ pre-intercalation in MoO3 nanobelts with enhanced electrochemical performance. Nano Energy, 2015, 15, 145-152.	8.2	72
65	The Young's modulus of high-aspect-ratio carbon/carbon nanotube composite microcantilevers by experimental and modeling validation. Applied Physics Letters, 2015, 106, .	1.5	45
66	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.	5.2	57
67	An electrospun hierarchical LiV3O8 nanowire-in-network for high-rate and long-life lithium batteries. Journal of Materials Chemistry A, 2015, 3, 19850-19856.	5.2	61
68	Manganese Oxide/Carbon Yolkâ€"Shell Nanorod Anodes for High Capacity Lithium Batteries. Nano Letters, 2015, 15, 738-744.	4.5	345
69	Ultralong H₂V₃O₈ nanowire bundles as a promising cathode for lithium batteries. New Journal of Chemistry, 2014, 38, 2075-2080.	1.4	39
70	VO₂ Nanowires Assembled into Hollow Microspheres for High-Rate and Long-Life Lithium Batteries. Nano Letters, 2014, 14, 2873-2878.	4.5	244
71	Heterogeneous branched coreâ€"shell SnO2â€"PANI nanorod arrays with mechanical integrity and three dimentional electron transport for lithium batteries. Nano Energy, 2014, 8, 196-204.	8.2	140
72	Nanowire Templated Semihollow Bicontinuous Graphene Scrolls: Designed Construction, Mechanism, and Enhanced Energy Storage Performance. Journal of the American Chemical Society, 2013, 135, 18176-18182.	6.6	187

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73	Fast Ionic Diffusion-Enabled Nanoflake Electrode by Spontaneous Electrochemical Pre-Intercalation for High-Performance Supercapacitor. Scientific Reports, 2013, 3, .	1.6	182
74	Substrate-Assisted Self-Organization of Radial Î²-AgVO₃ Nanowire Clusters for High Rate Rechargeable Lithium Batteries. Nano Letters, 2012, 12, 4668-4673.	4.5	60
75	Systematic Evaluation of Carbon Hosts for High-Energy Rechargeable Lithium-Metal Batteries. ACS Energy Letters, 0, , 1550-1559.	8.8	20