

# Dendrite-Free Lithium Anodes with Ultra-Deep Strips Vertically Oriented Lithium-Copper-Lithium Array

Advanced Materials

31, e1901310

DOI: [10.1002/adma.201901310](https://doi.org/10.1002/adma.201901310)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Alkaliphilic Cu <sub>2</sub> O nanowires on copper foam for hosting Li/Na as ultrastable alkali-metal anodes. <i>Journal of Materials Chemistry A</i> , 2019, 7, 20926-20935.	5.2	49
2	Molten Lithium-Filled Three-Dimensional Hollow Carbon Tube Mats for Stable Lithium Metal Anodes. <i>ACS Applied Energy Materials</i> , 2019, 2, 8303-8309.	2.5	21
3	Employing a T-shirt template and variant of Schweizer's reagent for constructing a low-weight, flexible, hierarchically porous and textile-structured copper current collector for dendrite-suppressed Li metal. <i>Journal of Materials Chemistry A</i> , 2019, 7, 27066-27073.	5.2	7
4	Perpendicular MXene Arrays with Periodic Interspaces toward Dendrite-Free Lithium Metal Anodes with High-Rate Capabilities. <i>Advanced Functional Materials</i> , 2020, 30, 1908075.	7.8	68
5	A Review of Composite Lithium Metal Anode for Practical Applications. <i>Advanced Materials Technologies</i> , 2020, 5, .	3.0	111
6	Mg Doped Li-B Alloy with In Situ Formed Lithiophilic LiB Skeleton for Lithium Metal Batteries. <i>Advanced Science</i> , 2020, 7, 1902643.	5.6	106
7	Highly Safe Electrolyte Enabled via Controllable Polysulfide Release and Efficient Conversion for Advanced Lithium-Sulfur Batteries. <i>Small</i> , 2020, 16, e1905737.	5.2	60
8	Dendrite-Free Potassium Metal Anodes in a Carbonate Electrolyte. <i>Advanced Materials</i> , 2020, 32, e1906735.	11.1	107
9	Monodispersed MnOx-CeO <sub>2</sub> solid solution as superior electrocatalyst for Li <sub>2</sub> S precipitation and conversion. <i>Chemical Engineering Journal</i> , 2020, 392, 123697.	6.6	46
10	In Situ Growing Chromium Oxynitride Nanoparticles on Carbon Nanofibers to Stabilize Lithium Deposition for Lithium Metal Anodes. <i>Small</i> , 2020, 16, e2003827.	5.2	21
11	A superb 3D composite lithium metal anode prepared by in-situ lithiation of sulfurized polyacrylonitrile. <i>Energy Storage Materials</i> , 2020, 33, 452-459.	9.5	14
12	Recent Progress in Designing Stable Composite Lithium Anodes with Improved Wettability. <i>Advanced Science</i> , 2020, 7, 2002212.	5.6	95
13	Developing high safety Li-metal anodes for future high-energy Li-metal batteries: strategies and perspectives. <i>Chemical Society Reviews</i> , 2020, 49, 5407-5445.	18.7	264
14	Guiding confined deposition of lithium through the conductivity changing interface within a hierarchical heterostructure toward dendrite-free lithium anodes. <i>Carbon</i> , 2020, 168, 633-639.	5.4	13
15	Coupling of triporosity and strong Au-Li interaction to enable dendrite-free lithium plating/stripping for long-life lithium metal anodes. <i>Journal of Materials Chemistry A</i> , 2020, 8, 18094-18105.	5.2	56
16	Stop Four Gaps with One Bush: Versatile Hierarchical Polybenzimidazole Nanoporous Membrane for Highly Durable Li-S Battery. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 55809-55819.	4.0	14
17	Controlled Growth of Li Dendrite Induced by Periodic Ni Mesh for Ultrastable Lithium Metal Battery. <i>Small</i> , 2020, 16, e2005639.	5.2	9
18	A Powder Metallurgic Approach toward High-Performance Lithium Metal Anodes. <i>Small</i> , 2020, 16, e2000794.	5.2	22

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19	In Situ Formed LiZn Alloy Skeleton for Stable Lithium Anodes. ACS Applied Materials & Interfaces, 2020, 12, 25818-25825.	4.0	32
20	Recently developed strategies to restrain dendrite growth of Li metal anodes for rechargeable batteries. Rare Metals, 2020, 39, 616-635.	3.6	89
21	Guiding lithium deposition in tent-like nitrogen-doped porous carbon microcavities for stable lithium metal anodes. Journal of Materials Chemistry A, 2020, 8, 13480-13489.	5.2	25
22	Recent Advances in Lithiophilic Porous Framework toward Dendrite-Free Lithium Metal Anode. Applied Sciences (Switzerland), 2020, 10, 4185.	1.3	33
23	Recent advances in research on anodes for safe and efficient lithium-metal batteries. Nanoscale, 2020, 12, 15528-15559.	2.8	31
24	Recent advances in MXenes and their composites in lithium/sodium batteries from the viewpoints of components and interlayer engineering. Physical Chemistry Chemical Physics, 2020, 22, 16482-16526.	1.3	47
25	Vanadium oxide nanorods embed in porous graphene aerogel as high-efficiency polysulfide-trapping-conversion mediator for high performance lithium-sulfur batteries. Chemical Engineering Journal, 2020, 393, 124570.	6.6	47
26	Designing of root-soil-like polyethylene oxide-based composite electrolyte for dendrite-free and long-cycling all-solid-state lithium metal batteries. Chemical Engineering Journal, 2020, 389, 124478.	6.6	62
27	Redox-Driven Lithium Perfusion to Fabricate Li@Ni Foam Composites for High Lithium-Loading 3D Anodes. ACS Applied Materials & Interfaces, 2020, 12, 9355-9364.	4.0	24
28	Sn layer decorated copper mesh with superior lithiophilicity for stable lithium metal anode. Chemical Engineering Journal, 2020, 395, 124922.	6.6	61
29	Towards practical lithium-metal anodes. Chemical Society Reviews, 2020, 49, 3040-3071.	18.7	473
30	Stable and dendrite-free lithium metal anodes enabled by carbon paper incorporated with ultrafine lithiophilic TiO <sub>2</sub> derived from MXene and carbon dioxide. Chemical Engineering Journal, 2021, 406, 126836.	6.6	45
31	A Dendrite-Free Lithium/Carbon Nanotube Hybrid for Lithium-Metal Batteries. Advanced Materials, 2021, 33, e2006702.	11.1	77
32	Composite Lithium Metal Anodes with Lithiophilic and Low Tortuosity Scaffold Enabling Ultrahigh Currents and Capacities in Carbonate Electrolytes. Advanced Functional Materials, 2021, 31, 2009961.	7.8	32
33	Multi-storey corridor structured host for a large area capacity and high rate metallic lithium anode. Electrochimica Acta, 2021, 365, 137341.	2.6	8
34	Selective nucleation and targeted deposition effect of lithium in a lithium-metal host anode. Journal of Materials Chemistry A, 2021, 9, 5381-5389.	5.2	29
35	Insight into the Critical Role of Exchange Current Density on Electrodeposition Behavior of Lithium Metal. Advanced Science, 2021, 8, 2003301.	5.6	146
36	Strategies in Structure and Electrolyte Design for High-Performance Lithium Metal Batteries. Advanced Functional Materials, 2021, 31, 2009694.	7.8	122

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37	Tortuosity Modulation toward High-Energy and High-Power Lithium Metal Batteries. <i>Advanced Energy Materials</i> , 2021, 11, 2003663.	10.2	46
38	Harnessing the Unique Features of 2D Materials toward Dendrite-free Metal Anodes. <i>Energy and Environmental Materials</i> , 2022, 5, 45-67.	7.3	33
39	Pore-assisted lithium deposition in hierarchically porous and hollow carbon textile for highly stable lithium anode. <i>Journal of Power Sources</i> , 2021, 489, 229464.	4.0	17
40	Highly Lithiophilic Copper-Reinforced Scaffold Enables Stable Li Metal Anode. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 20240-20250.	4.0	24
41	Polymorph Evolution Mechanisms and Regulation Strategies of Lithium Metal Anode under Multiphysical Fields. <i>Chemical Reviews</i> , 2021, 121, 5986-6056.	23.0	165
42	Ultrafast Microwave Polarizing Electrons to Form Vertically Aligned Metal Hybrids as Lithiophilic Buffer for Lithium-Metal Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 16594-16601.	4.0	9
43	Lotus-Root-Like Carbon Fibers Embedded with Ni-Co Nanoparticles for Dendrite-Free Lithium Metal Anodes. <i>Advanced Materials</i> , 2021, 33, e2100608.	11.1	99
44	Rationally design lithiophilic surfaces toward high-energy Lithium metal battery. <i>Energy Storage Materials</i> , 2021, 37, 40-46.	9.5	41
45	Lithium Host:Advanced architecture components for lithium metal anode. <i>Energy Storage Materials</i> , 2021, 38, 276-298.	9.5	89
46	Self-standing carbon nanotube aerogels with amorphous carbon coating as stable host for lithium anodes. <i>Carbon</i> , 2021, 177, 181-188.	5.4	30
47	Ultra-thin 2D MoO <sub>2</sub> nanosheets coupled with CNTs as efficient separator coating materials to promote the catalytic conversion of lithium polysulfides for advanced lithium-sulfur batteries. <i>New Carbon Materials</i> , 2021, 36, 810-820.	2.9	13
48	Defects Engineering of Lightweight Metal-Organic Frameworks-Based Electrocatalytic Membrane for High-Loading Lithium-Sulfur Batteries. <i>ACS Nano</i> , 2021, 15, 13803-13813.	7.3	62
49	Liquid Metal Welding to Suppress Li Dendrite by Equalized Heat Distribution. <i>Advanced Functional Materials</i> , 2021, 31, 2106740.	7.8	40
50	Revisiting lithium metal anodes from a dynamic and realistic perspective. <i>EnergyChem</i> , 2021, 3, 100063.	10.1	11
51	Challenges and progresses of lithium-metal batteries. <i>Chemical Engineering Journal</i> , 2021, 420, 129739.	6.6	67
52	Lithium-gel polymer electrolyte composite anode with large electrolyte-lithium interface for solid-state battery. <i>Electrochimica Acta</i> , 2021, 394, 139123.	2.6	4
53	Combined density functional theory/kinetic Monte Carlo investigation of surface morphology during cycling of Li-Cu electrodes. <i>Electrochimica Acta</i> , 2021, 397, 139272.	2.6	3
54	Large areal capacity and dendrite-free anodes with long lifetime enabled by distributed lithium plating with mossy manganese oxides. <i>Journal of Materials Chemistry A</i> , 2021, 9, 9291-9300.	5.2	6

#	ARTICLE	IF	CITATIONS
55	Vertical Graphenes Grown on a Flexible Graphite Paper as an All-Carbon Current Collector towards Stable Li Deposition. <i>Research</i> , 2020, 2020, 7163948.	2.8	12
56	Multifunctional Protection Layers via a Self-Driven Chemical Reaction To Stabilize Lithium Metal Anodes. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 56682-56691.	4.0	10
57	Gradient lithiation to load controllable, high utilization lithium in graphitic carbon host for high-energy batteries. <i>Nano Energy</i> , 2022, 93, 106808.	8.2	14
58	A coaxial zinc-tin vertically oriented array-based anode for achieving ultrahigh areal current and capacity up to 80 mA cm <sup>-2</sup> and 80 mA h cm <sup>-2</sup> . <i>Journal of Materials Chemistry A</i> , 2022, 10, 1919-1927.	5.2	7
59	Dielectric polymer based electrolytes for high-performance all-solid-state lithium metal batteries. <i>Journal of Energy Chemistry</i> , 2022, 69, 194-204.	7.1	82
60	Regulating the Interfacial Electric Field for a Stable Lithium Metal Anode. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 956-966.	3.2	4
61	A Blockchain-Synergy in Conductive Polymer-Filled Metal-Organic Frameworks for Dendrite-Free Li Plating/Stripping with High Coulombic Efficiency. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	36
62	A Blockchain-Synergy in Conductive Polymer-Filled Metal-Organic Frameworks for Dendrite-Free Li Plating/Stripping with High Coulombic Efficiency. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	5
63	Spatially hierarchical carbon enables superior long-term cycling of ultrahigh areal capacity lithium metal anodes. <i>Matter</i> , 2022, 5, 1263-1276.	5.0	15
64	A dendrite-suppressed and utilization-improved metallic Li anode enabled by lithiophilic nano-Pb decoration on carbon cloth. <i>Journal of Materials Chemistry A</i> , 2022, 10, 8424-8431.	5.2	9
65	Achieve Stable Lithium Metal Anode by Sulfurized-Polyacrylonitrile Modified Separator for High-Performance Lithium Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 14264-14273.	4.0	18
66	Au-coated carbon fabric as Janus current collector for dendrite-free flexible lithium metal anode and battery. <i>Applied Physics Reviews</i> , 2022, 9, .	5.5	18
67	Fast-charging and dendrite-free lithium metal anode enabled by partial lithiation of graphene aerogel. <i>Nano Research</i> , 2022, 15, 9792-9799.	5.8	8
68	Stress-Release Functional Liquid Metal-MXene Layers toward Dendrite-Free Zinc Metal Anodes. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	58
69	Constructing 3D Porous Current Collectors for Stable and Dendrite-Free Lithium Metal Anodes. <i>Advanced Sustainable Systems</i> , 2022, 6, .	2.7	19
70	Inverted Anode Structure for Long-Life Lithium Metal Batteries. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	29
71	Covalent organic framework film protected zinc anode for highly stable rechargeable aqueous zinc-ion batteries. <i>Energy Storage Materials</i> , 2022, 48, 82-89.	9.5	83
72	Lattice Matching and Halogen Regulation for Synergistically Induced Uniform Zinc Electrodeposition by Halogenated Ti <sub>3</sub> C <sub>2</sub> MXenes. <i>ACS Nano</i> , 2022, 16, 813-822.	7.3	90

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73	Flexible, solid-state, fiber-network-reinforced composite solid electrolyte for long lifespan solid lithium-sulfurized polyacrylonitrile battery. <i>Nano Research</i> , 2022, 15, 3290-3298.	5.8	10
74	Formation of Superassembled TiO <sub>x</sub> /Zn-Doped Carbon Inverse Opal Towards Dendrite-Free Zn Anodes. <i>Angewandte Chemie - International Edition</i> , 2022, 61, e202115649.	7.2	76
75	Formation of Superassembled TiO <sub>x</sub> /Zn-Doped Carbon Inverse Opal Towards Dendrite-Free Zn Anodes. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	4
76	A microgrid-patterned silicon electrode as an electroactive lithium host. <i>Energy and Environmental Science</i> , 2022, 15, 2581-2590.	15.6	12
77	A lithiophilic hyperbranched polymer-decorated three-dimensional carbon skeleton boosting highly reversible lithium metal anode. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 647, 129104.	2.3	1
78	Lithiophilic hollow Co <sub>3</sub> [Co(CN) <sub>6</sub> ] <sub>2</sub> embedded carbon nanotube film for dendrite-free lithium metal anodes. <i>Journal of Colloid and Interface Science</i> , 2022, 623, 532-540.	5.0	7
79	Defect-abundant commercializable 3D carbon papers for fabricating composite Li anode with high loading and long life. <i>Energy Storage Materials</i> , 2022, 50, 407-416.	9.5	4
80	Gradient Design for High-Energy and High-Power Batteries. <i>Advanced Materials</i> , 2022, 34, .	11.1	53
81	Anion Concentration Gradient-Assisted Construction of a Solid-Electrolyte Interphase for a Stable Zinc Metal Anode at High Rates. <i>Journal of the American Chemical Society</i> , 2022, 144, 11168-11177.	6.6	94
82	Low-Tortuous MXene (TiNbC) Accordion Arrays Enabled Fast Ion Diffusion and Charge Transfer in Dendrite-Free Lithium Metal Anodes. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	14
83	Structure/Interface Coupling Effect for High-Voltage LiCoO <sub>2</sub> Cathodes. <i>Advanced Materials</i> , 2022, 34, .	11.1	27
84	Eliminating Lightning-Rod Effect of Lithium Anodes via Sine-Wave Analogous MXene Layers. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	11
85	Rationalized design of hyperbranched trans-scale graphene arrays for enduring high-energy lithium metal batteries. <i>Science Advances</i> , 2022, 8, .	4.7	14
86	Lithium Perchlorate Additive for Dendritic-Free and Long-Life Li Metal Batteries. <i>Energy &amp; Fuels</i> , 2022, 36, 11219-11226.	2.5	2
87	Three-dimensional SEI framework induced by ion regulation in toroidal magnetic field for lithium metal battery. <i>Cell Reports Physical Science</i> , 2022, 3, 101080.	2.8	8
88	Achieving a dendrite-free lithium metal anode through lithiophilic surface modification with sodium diethyldithiocarbamate. <i>Inorganic Chemistry Frontiers</i> , 2022, 9, 6498-6509.	3.0	3
89	Headway towards contemporary 2D MXene-based hybrid electrodes for alkali-ion batteries. <i>Energy Advances</i> , 2022, 1, 950-979.	1.4	3
90	Interface Reversible Electric Field Regulated by Amphoteric Charged Protein-Based Coating Toward High-Rate and Robust Zn Anode. <i>Nano-Micro Letters</i> , 2022, 14, .	14.4	25

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91	Enhanced and evenly-distributed Li <sup>+</sup> transport in well-aligned nanochannels enables stable lithium metal anode. <i>Electrochemistry Communications</i> , 2022, 144-145, 107395.	2.3	2
92	Ball-Milling-Triggered Synthesis of Si/C/SiC@MCMB Composites from Carbon Dioxide for Improved Lithium Storage Capability. <i>Energy &amp; Fuels</i> , 2023, 37, 746-753.	2.5	9
93	Rational Design of a Robust Flexible Triblock Polyurea Copolymer Protective Layer for High-Performance Lithium Metal Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 55735-55744.	4.0	0
94	Advanced Composite Lithium Metal Anodes with 3D Frameworks: Preloading Strategies, Interfacial Optimization, and Perspectives. <i>Small</i> , 2023, 19, .	5.2	10
95	Present and future of functionalized Cu current collectors for stabilizing lithium metal anodes. , 2023, 2, e9120048.		26
96	A review on lithium-sulfur batteries: Challenge, development, and perspective. <i>Nano Research</i> , 2023, 16, 8097-8138.	5.8	36
97	Highly stable 3D Li metal anodes enabled by a shielding/rectifying polymer layer. <i>Electrochimica Acta</i> , 2023, 441, 141858.	2.6	2
98	Composite lithium metal anodes for solid-state battery applications. , 2023, , 81-94.		1
99	Multi-chain hydrophobic polymer protective layer with high elasticity for stable lithium metal anode. <i>Journal of Materials Science</i> , 2023, 58, 2713-2720.	1.7	1
100	Ultra-thin and ultra-light self-lubricating layer with accelerated dynamics for anode-free lithium metal batteries. <i>Energy Storage Materials</i> , 2023, 58, 110-122.	9.5	7
101	Integrative design of laser-induced graphene array with lithiophilic MnOx nanoparticles enables superior lithium metal batteries. <i>EScience</i> , 2023, 3, 100134.	25.0	8
109	From Liquid to Solid-State Lithium Metal Batteries: Fundamental Issues and Recent Developments. <i>Nano-Micro Letters</i> , 2024, 16, .	14.4	1
110	Design and application of copper/lithium composite anodes for advanced lithium metal batteries. <i>Rare Metals</i> , 2024, 43, 942-970.	3.6	0