

Xiaolin Li

List of Publications by Year in descending order

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66
papers

17,181
citations

53794

45
h-index

110387

64
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66
all docs

66
docs citations

66
times ranked

21506
citing authors

#	ARTICLE	IF	CITATIONS
1	Chemically Derived, Ultrasoother Graphene Nanoribbon Semiconductors. <i>Science</i> , 2008, 319, 1229-1232.	12.6	4,504
2	Reversible aqueous zinc/manganese oxide energy storage from conversion reactions. <i>Nature Energy</i> , 2016, 1, .	39.5	2,186
3	Simultaneous Nitrogen Doping and Reduction of Graphene Oxide. <i>Journal of the American Chemical Society</i> , 2009, 131, 15939-15944.	13.7	1,673
4	Mesoporous silicon sponge as an anti-pulverization structure for high-performance lithium-ion battery anodes. <i>Nature Communications</i> , 2014, 5, 4105.	12.8	1,160
5	Materials Science and Materials Chemistry for Large Scale Electrochemical Energy Storage: From Transportation to Electrical Grid. <i>Advanced Functional Materials</i> , 2013, 23, 929-946.	14.9	590
6	Controlling SEI Formation on SnSb@Porous Carbon Nanofibers for Improved Na Ion Storage. <i>Advanced Materials</i> , 2014, 26, 2901-2908.	21.0	441
7	From Charge Storage Mechanism to Performance: A Roadmap toward High Specific Energy Sodium-ion Batteries through Carbon Anode Optimization. <i>Advanced Energy Materials</i> , 2018, 8, 1703268.	19.5	396
8	Langmuir-Blodgett Assembly of Densely Aligned Single-Walled Carbon Nanotubes from Bulk Materials. <i>Journal of the American Chemical Society</i> , 2007, 129, 4890-4891.	13.7	373
9	Hierarchical porous silicon structures with extraordinary mechanical strength as high-performance lithium-ion battery anodes. <i>Nature Communications</i> , 2020, 11, 1474.	12.8	298
10	Selective Synthesis Combined with Chemical Separation of Single-Walled Carbon Nanotubes for Chirality Selection. <i>Journal of the American Chemical Society</i> , 2007, 129, 15770-15771.	13.7	282
11	Hollow core-shell structured porous Si@C nanocomposites for Li-ion battery anodes. <i>Journal of Materials Chemistry</i> , 2012, 22, 11014.	6.7	280
12	Ultra-thick, Low-tortuosity, and Mesoporous Wood Carbon Anode for High-performance Sodium-ion Batteries. <i>Advanced Energy Materials</i> , 2016, 6, 1600377.	19.5	257
13	Hard Carbon as Sodium-ion Battery Anodes: Progress and Challenges. <i>ChemSusChem</i> , 2019, 12, 133-144.	6.8	257
14	Advanced Sodium Ion Battery Anode Constructed <i>via</i> Chemical Bonding between Phosphorus, Carbon Nanotube, and Cross-Linked Polymer Binder. <i>ACS Nano</i> , 2015, 9, 11933-11941.	14.6	255
15	Self-Assembled Fe-N-Doped Carbon Nanotube Aerogels with Single-Atom Catalyst Feature as High-efficiency Oxygen Reduction Electrocatalysts. <i>Small</i> , 2017, 13, 1603407.	10.0	254
16	Enabling room temperature sodium metal batteries. <i>Nano Energy</i> , 2016, 30, 825-830.	16.0	248
17	Interphases in Sodium-ion Batteries. <i>Advanced Energy Materials</i> , 2018, 8, 1703082.	19.5	236
18	Origin of lithium whisker formation and growth under stress. <i>Nature Nanotechnology</i> , 2019, 14, 1042-1047.	31.5	211

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19	A novel approach to synthesize micrometer-sized porous silicon as a high performance anode for lithium-ion batteries. <i>Nano Energy</i> , 2018, 50, 589-597.	16.0	191
20	High-Performance Silicon Anodes Enabled By Nonflammable Localized High-Concentration Electrolytes. <i>Advanced Energy Materials</i> , 2019, 9, 1900784.	19.5	175
21	Crossroads in the renaissance of rechargeable aqueous zinc batteries. <i>Materials Today</i> , 2021, 45, 191-212.	14.2	171
22	Exceptionally High Ionic Conductivity in $\text{Na}_{0.3}\text{P}_{0.62}\text{As}_{0.38}\text{S}_4$ with Improved Moisture Stability for Solid-State Sodium-Ion Batteries. <i>Advanced Materials</i> , 2017, 29, 1605561.	21.0	164
23	Tuning the Solid Electrolyte Interphase for Selective Li- and Na-Ion Storage in Hard Carbon. <i>Advanced Materials</i> , 2017, 29, 1606860.	21.0	157
24	Progressive growth of the solid-electrolyte interphase towards the Si anode interior causes capacity fading. <i>Nature Nanotechnology</i> , 2021, 16, 1113-1120.	31.5	147
25	Design of porous Si/graphite electrodes with long cycle stability and controlled swelling. <i>Energy and Environmental Science</i> , 2017, 10, 1427-1434.	30.8	140
26	Low-solvation electrolytes for high-voltage sodium-ion batteries. <i>Nature Energy</i> , 2022, 7, 718-725.	39.5	137
27	Yolk-shell structured Sb@C anodes for high energy Na-ion batteries. <i>Nano Energy</i> , 2017, 40, 504-511.	16.0	123
28	Enhanced Stability of Li Metal Anodes by Synergetic Control of Nucleation and the Solid Electrolyte Interphase. <i>Advanced Energy Materials</i> , 2019, 9, 1901764.	19.5	108
29	Lithium-Pre-treated Hard Carbon as High-Performance Sodium-Ion Battery Anodes. <i>Advanced Energy Materials</i> , 2018, 8, 1801441.	19.5	105
30	Polyvinyl alcohol coating induced preferred crystallographic orientation in aqueous zinc battery anodes. <i>Nano Energy</i> , 2022, 98, 107269.	16.0	102
31	A Micrometer-Sized Silicon/Carbon Composite Anode Synthesized by Impregnation of Petroleum Pitch in Nanoporous Silicon. <i>Advanced Materials</i> , 2021, 33, e2103095.	21.0	99
32	Functionalized Graphene Sheets as Molecular Templates for Controlled Nucleation and Self-Assembly of Metal Oxide-Graphene Nanocomposites. <i>Advanced Materials</i> , 2012, 24, 5136-5141.	21.0	92
33	Chemical self-assembly of graphene sheets. <i>Nano Research</i> , 2009, 2, 336-342.	10.4	80
34	Engineering stable Zn-MnO ₂ batteries by synergistic stabilization between the carbon nanofiber core and birnessite-MnO ₂ nanosheets shell. <i>Chemical Engineering Journal</i> , 2021, 405, 126969.	12.7	74
35	Stable Sodium Metal Batteries via Manipulation of Electrolyte Solvation Structure. <i>Small Methods</i> , 2020, 4, 1900856.	8.6	73
36	Interfacial-engineering-enabled practical low-temperature sodium metal battery. <i>Nature Nanotechnology</i> , 2022, 17, 269-277.	31.5	69

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37	Charging activation and desulfurization of MnS unlock the active sites and electrochemical reactivity for Zn-ion batteries. <i>Nano Energy</i> , 2020, 75, 104869.	16.0	66
38	Sugar Blowing-Induced Porous Cobalt Phosphide/Nitrogen-Doped Carbon Nanostructures with Enhanced Electrochemical Oxidation Performance toward Water and Other Small Molecules. <i>Small</i> , 2017, 13, 1700796.	10.0	65
39	Controlling Surface Phase Transition and Chemical Reactivity of O3-Layered Metal Oxide Cathodes for High-Performance Na-Ion Batteries. <i>ACS Energy Letters</i> , 2020, 5, 1718-1725.	17.4	64
40	Edge magnetotransport fingerprints in disordered graphene nanoribbons. <i>Physical Review B</i> , 2010, 82, .	3.2	63
41	Multifunctional SnO ₂ /3D graphene hybrid materials for sodium-ion and lithium-ion batteries with excellent rate capability and long cycle life. <i>Nano Research</i> , 2017, 10, 4398-4414.	10.4	63
42	Vacancy-Enabled O3 Phase Stabilization for Manganese-Rich Layered Sodium Cathodes. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 8258-8267.	13.8	59
43	Rational Design of Electrolytes for Long-Term Cycling of Si Anodes over a Wide Temperature Range. <i>ACS Energy Letters</i> , 2021, 6, 387-394.	17.4	58
44	Unlocking the passivation nature of the cathode-air interfacial reactions in lithium ion batteries. <i>Nature Communications</i> , 2020, 11, 3204.	12.8	55
45	Electrolyte Effect on the Electrochemical Performance of Mild Aqueous Zinc-Electrolytic Manganese Dioxide Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 37524-37530.	8.0	47
46	A comparative study of pomegranate Sb@C yolk-shell microspheres as Li and Na-ion battery anodes. <i>Nanoscale</i> , 2019, 11, 348-355.	5.6	45
47	Effects of water-based binders on electrochemical performance of manganese dioxide cathode in mild aqueous zinc batteries. , 2021, 3, 473-481.		44
48	Enabling Natural Graphite in High-Voltage Aqueous Graphite Zn Metal Dual-Ion Batteries. <i>Advanced Energy Materials</i> , 2020, 10, 2001256.	19.5	43
49	Electrodeposited Zinc-Based Films as Anodes for Aqueous Zinc Batteries. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 42763-42772.	8.0	43
50	The importance of solid electrolyte interphase formation for long cycle stability full-cell Na-ion batteries. <i>Nano Energy</i> , 2016, 27, 664-672.	16.0	41
51	Template-directed synthesis of nitrogen- and sulfur-codoped carbon nanowire aerogels with enhanced electrocatalytic performance for oxygen reduction. <i>Nano Research</i> , 2017, 10, 1888-1895.	10.4	34
52	Uncommon Behavior of Li Doping Suppresses Oxygen Redox in P2-Type Manganese-Rich Sodium Cathodes. <i>Advanced Materials</i> , 2021, 33, e2107141.	21.0	34
53	Sandwich-structured nanocomposites of N-doped graphene and nearly monodisperse Fe ₃ O ₄ nanoparticles as high-performance Li-ion battery anodes. <i>Nano Research</i> , 2017, 10, 2923-2933.	10.4	30
54	Edge Dislocations Induce Improved Photocatalytic Efficiency of Colored TiO ₂ . <i>Advanced Materials Interfaces</i> , 2019, 6, 1901121.	3.7	30

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55	Revealing the Atomic Origin of Heterogeneous Li ⁺ Ion Diffusion by Probing Na. <i>Advanced Materials</i> , 2019, 31, e1805889.	21.0	30
56	High-Performance InZn Alloy Anodes toward Practical Aqueous Zinc Batteries. <i>ACS Energy Letters</i> , 2022, 7, 1888-1895.	17.4	26
57	Controlling Ion Coordination Structure and Diffusion Kinetics for Optimized Electrode-Electrolyte Interphases and High-Performance Si Anodes. <i>Chemistry of Materials</i> , 2020, 32, 8956-8964.	6.7	24
58	A general strategy for batch development of high-performance and cost-effective sodium layered cathodes. <i>Nano Energy</i> , 2021, 89, 106371.	16.0	22
59	Mechanistic investigation of redox processes in Zn ²⁺ /MnO ₂ battery in mild aqueous electrolytes. <i>Journal of Materials Chemistry A</i> , 2021, 9, 20766-20775.	10.3	18
60	Carbon Nanotubes: From Growth, Placement and Assembly Control to 60mV/decade and Sub-60 mV/decade Tunnel Transistors. , 2006, , .		14
61	Vacancy-Enabled O3 Phase Stabilization for Manganese-Rich Layered Sodium Cathodes. <i>Angewandte Chemie</i> , 2021, 133, 8339-8348.	2.0	14
62	Enhancing Chemical Interaction of Polysulfide and Carbon through Synergetic Nitrogen and Phosphorus Doping. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 806-813.	6.7	11
63	A glance of the layered transition metal oxide cathodes in sodium and lithium-ion batteries: difference and similarities. <i>Nanotechnology</i> , 2021, 32, 422501.	2.6	11
64	LiCoPO ₄ cathode from a CoHPO ₄ ·xH ₂ O nanoplate precursor for high voltage Li-ion batteries. <i>Heliyon</i> , 2016, 2, e00081.	3.2	10
65	Nonsacrificial Additive for Tuning the Cathode-Electrolyte Interphase of Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 4111-4118.	8.0	8
66	Aqueous Dual-Ion Batteries: Enabling Natural Graphite in High-Voltage Aqueous Graphite Zn Metal Dual-Ion Batteries (<i>Adv. Energy Mater.</i> 41/2020). <i>Advanced Energy Materials</i> , 2020, 10, 2070169.	19.5	1