

Xinhai Li

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.

103
papers

4,427
citations

34
h-index

64
g-index

103
ext. papers

5,090
ext. citations

7.7
avg, IF

5.93
L-index

#	Paper	IF	Citations
103	First-Principle Study of a ZnS/Graphene Heterostructure as a Promising Anode Material for Lithium-Ion Batteries. <i>Energy & Fuels</i> , 2022 , 36, 677-683	4.1	0
102	Mitigating the voltage fading and air sensitivity of O3-type NaNi _{0.4} Mn _{0.4} Cu _{0.1} Ti _{0.1} O ₂ cathode material via La doping. <i>Chemical Engineering Journal</i> , 2021 , 133456	14.7	2
101	First principles calculation of Li ₂ +2xZn _{1-x} SiO ₄ (x=0.1250.5) as solid electrolyte for lithium-ion battery. <i>Solid State Ionics</i> , 2021 , 371, 115767	3.3	2
100	Spiral Graphene Coupling Hierarchically Porous Carbon Advances Dual-Carbon Lithium Ion Capacitor. <i>Energy Storage Materials</i> , 2021 , 38, 528-534	19.4	8
99	Evolution of the morphology, structural and thermal stability of LiCoO ₂ during overcharge. <i>Journal of Energy Chemistry</i> , 2021 , 55, 524-532	12	13
98	Incorporating multifunctional LiAlSiO ₄ into polyethylene oxide for high-performance solid-state lithium batteries. <i>Journal of Energy Chemistry</i> , 2021 , 53, 116-123	12	10
97	Self-sacrificial-reaction guided formation of hierarchical electronic/ionic conductive shell enabling high-performance nano-silicon anode. <i>Chemical Engineering Journal</i> , 2021 , 415, 128998	14.7	11
96	Research Progress of Single-Crystal Nickel-Rich Cathode Materials for Lithium Ion Batteries.. <i>Small Methods</i> , 2021 , 5, e2100234	12.8	10
95	Atomic layer deposition-strengthened lithiophilicity of ultrathin TiO ₂ film decorated Cu foil for stable lithium metal anode. <i>Journal of Power Sources</i> , 2020 , 463, 228157	8.9	21
94	Oxygen-induced lithiophilicity of tin-based framework toward highly stable lithium metal anode. <i>Chemical Engineering Journal</i> , 2020 , 394, 124848	14.7	16
93	New insight into the electrodeposition of NiCo layered double hydroxide and its capacitive evaluation. <i>Electrochimica Acta</i> , 2020 , 336, 135734	6.7	11
92	Vital effect of sufficient vulcanization on the properties of Ni-Co-S/graphene composites for supercapacitor. <i>Chemical Engineering Science</i> , 2020 , 221, 115709	4.4	7
91	In-situ tailored 3D Li ₂ O@Cu nanowires array enabling stable lithium metal anode with ultra-high coulombic efficiency. <i>Journal of Power Sources</i> , 2020 , 463, 228178	8.9	16
90	Clearing surficial charge-transport obstacles to boost the performance of lithium-rich layered oxides. <i>Chemical Engineering Journal</i> , 2020 , 399, 125142	14.7	5
89	Modification on improving the structural stabilities and cyclic properties of Li _{1.2} Mn _{0.54} Ni _{0.13} Co _{0.13} O ₂ cathode materials with CePO ₄ . <i>Ionics</i> , 2020 , 26, 2117-2127	2.7	5
88	Bifunctional Li ₆ CoO ₄ serving as prelithiation reagent and pseudocapacitive electrode for lithium ion capacitors. <i>Journal of Energy Chemistry</i> , 2020 , 47, 38-45	12	13
87	High-Value Utilization of Lignin To Prepare Functional Carbons toward Advanced Lithium-Ion Capacitors. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 11522-11531	8.3	14

86	A Renewable Sedimentary Slurry Battery: Preliminary Study in Zinc Electrodes. <i>IScience</i> , 2020 , 23, 101821-101826.	6.1	4
85	Mono-Active Bimetallic Oxide Co ₂ AlO ₄ with Yolk-Shell Structure as a Superior Lithium-Storage Material. <i>ChemElectroChem</i> , 2019 , 6, 3298-3302	4.3	4
84	Manipulating the Composition and Structure of Solid Electrolyte Interphase at Graphite Anode by Adjusting the Formation Condition. <i>Energy Technology</i> , 2019 , 7, 1900273	3.5	12
83	Advances in nanostructures fabricated via spray pyrolysis and their applications in energy storage and conversion. <i>Chemical Society Reviews</i> , 2019 , 48, 3015-3072	58.5	182
82	Modification by simultaneously $\text{LiWO}_3/\text{Li}_2\text{WO}_4$ composite coating and spinel-structure formation on $\text{Li}[\text{Li}_{0.2}\text{Mn}_{0.54}\text{Ni}_{0.13}\text{Co}_{0.13}]\text{O}_2$ cathode via a simple wet process. <i>Journal of Alloys and Compounds</i> , 2019 , 790, 421-432	5.7	8
81	Smartly tailored $\text{Co}(\text{OH})_2\text{-Ni}(\text{OH})_2$ heterostructure on nickel foam as binder-free electrode for high-energy hybrid capacitors. <i>Electrochimica Acta</i> , 2019 , 309, 140-147	6.7	15
80	Magnesium-doped $\text{Li}[\text{Li}_{0.2}\text{Mn}_{0.54}\text{Ni}_{0.13}\text{Co}_{0.13}]\text{O}_2$ cathode with high rate capability and improved cyclic stability. <i>Ionics</i> , 2019 , 25, 1967-1977	2.7	10
79	FeCo_x alloy nanoparticles encapsulated in three-dimensionally N-doped porous carbon/multiwalled carbon nanotubes composites as bifunctional electrocatalyst for zinc-air battery. <i>Journal of Power Sources</i> , 2019 , 438, 227019	8.9	16
78	Lithiophilic Ag/Li composite anodes via a spontaneous reaction for Li nucleation with a reduced barrier. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 20911-20918	13	30
77	Controlled Synthesis of $\text{Ni}_x\text{Co}_y\text{S}_4/\text{rGO}$ Composites for Constructing High-Performance Asymmetric Supercapacitor. <i>Frontiers in Materials</i> , 2019 , 6,	4	7
76	Modification of $\text{Li}[\text{Li}_{0.2}\text{Mn}_{0.54}\text{Ni}_{0.13}\text{Co}_{0.13}]\text{O}_2$ cathode with LiMoO_3 via a simple wet chemical coating process. <i>Applied Surface Science</i> , 2019 , 479, 1277-1286	6.7	14
75	A novel dried plum-like yolk-shell architecture of tin oxide nanodots embedded into a carbon matrix: ultra-fast assembly and superior lithium storage properties. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 5803-5810	13	29
74	The Electrochemical Performance and Reaction Mechanism of Coated Titanium Anodes for Manganese Electrowinning. <i>Journal of the Electrochemical Society</i> , 2019 , 166, E502-E511	3.9	15
73	Systematic parameter acquisition method for electrochemical model of 4.35 V LiCoO_2 batteries. <i>Solid State Ionics</i> , 2019 , 343, 115083	3.3	16
72	The influences of SO_4^{2-} from electrolytic manganese dioxide precursor on the electrochemical properties of Li-rich Mn-based material for Li-ion batteries. <i>Ionics</i> , 2019 , 25, 2585-2594	2.7	7
71	Facile construction of $\text{Co}(\text{OH})_2@\text{Ni}(\text{OH})_2$ core-shell nanosheets on nickel foam as three dimensional free-standing electrode for supercapacitors. <i>Electrochimica Acta</i> , 2019 , 293, 40-46	6.7	40
70	Compact structured silicon/carbon composites as high-performance anodes for lithium ion batteries. <i>Ionics</i> , 2018 , 24, 3405-3411	2.7	8
69	Improving the electrochemical performance of Li-rich $\text{Li}_{1.2}\text{Ni}_{0.13}\text{Co}_{0.13}\text{Mn}_{0.54}\text{O}_2$ cathode material by LiF coating. <i>Ionics</i> , 2018 , 24, 3717-3724	2.7	13

68	Suppressing the Voltage Decay and Enhancing the Electrochemical Performance of Li _{1.2} Mn _{0.54} Co _{0.13} Ni _{0.13} O ₂ by Multifunctional Nb ₂ O ₅ Coating. <i>Energy Technology</i> , 2018 , 6, 2139-2145	3.5	40
67	The role of a MnO ₂ functional layer on the surface of Ni-rich cathode materials: Towards enhanced chemical stability on exposure to air. <i>Ceramics International</i> , 2018 , 44, 13341-13348	5.1	28
66	Cooperation of nitrogen-doping and catalysis to improve the Li-ion storage performance of lignin-based hard carbon. <i>Journal of Energy Chemistry</i> , 2018 , 27, 1390-1396	12	27
65	An Ostwald ripening route towards Ni-rich layered cathode material with cobalt-rich surface for lithium ion battery. <i>Science China Materials</i> , 2018 , 61, 719-727	7.1	21
64	Lightweight Reduced Graphene Oxide@MoS Interlayer as Polysulfide Barrier for High-Performance Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 3707-3713	9.5	182
63	Fluidized bed reaction towards crystalline embedded amorphous Si anode with much enhanced cycling stability. <i>Chemical Communications</i> , 2018 , 54, 3755-3758	5.8	60
62	A smart architecture of nickel-cobalt sulfide nanotubes assembled nanoclusters for high-performance pseudocapacitor. <i>Journal of Alloys and Compounds</i> , 2018 , 765, 505-511	5.7	9
61	BODIPY-Based Conjugated Porous Polymer and Its Derived Porous Carbon for Lithium-Ion Storage. <i>ACS Omega</i> , 2018 , 3, 7727-7735	3.9	8
60	Structural and electrochemical characterization of NH ₄ F-pretreated lithium-rich layered Li[Li _{0.2} Ni _{0.13} Co _{0.13} Mn _{0.54}]O ₂ cathodes for lithium-ion batteries. <i>Ceramics International</i> , 2018 , 44, 14370-14376	5.1	14376
59	A novel hierarchical precursor of densely integrated hydroxide nanoflakes on oxide microspheres toward high-performance layered Ni-rich cathode for lithium ion batteries. <i>Materials Chemistry Frontiers</i> , 2018 , 2, 1822-1828	7.8	12
58	Superior lithium storage of Si/WSi ₂ composite prepared via one step co-reduction of multi-phase oxide. <i>Journal of Electroanalytical Chemistry</i> , 2018 , 826, 84-89	4.1	7
57	Improving rate capability and decelerating voltage decay of Li-rich layered oxide cathodes by chromium doping. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 11109-11119	6.7	50
56	Anchoring K ⁺ in Li ⁺ Sites of LiNi _{0.8} Co _{0.15} Al _{0.05} O ₂ Cathode Material to Suppress its Structural Degradation During High-Voltage Cycling. <i>Energy Technology</i> , 2018 , 6, 2358-2366	3.5	55
55	Li ₃ V(MoO ₄) ₃ as a novel electrode material with good lithium storage properties and improved initial coulombic efficiency. <i>Nano Energy</i> , 2018 , 44, 272-278	17.1	104
54	Spray pyrolysis synthesis of nickel-rich layered cathodes LiNi _{1-x} Co _x Mn _x O ₂ (x = 0.075, 0.05, 0.025) for lithium-ion batteries. <i>Journal of Energy Chemistry</i> , 2018 , 27, 447-450	12	19
53	Bulk and surface reconstructed Li-rich Mn-based cathode material for lithium ion batteries with eliminating irreversible capacity loss. <i>Journal of Electroanalytical Chemistry</i> , 2018 , 829, 7-15	4.1	8
52	Three-dimensionally mesoporous dual (Co, Fe) metal oxide/CNTs composite as electrocatalysts for air cathodes in Li-O ₂ batteries. <i>Ceramics International</i> , 2018 , 44, 21942-21949	5.1	7
51	Improving the Desulfurization Degree of High-Grade Nickel Matte via a Two-Step Oxidation Roasting Process. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2018 , 49, 1834-1840	2.5	3

50	Effects of Nb doping on the performance of 0.5Li ₂ MnO ₃ /0.5LiNi _{1/3} Co _{1/3} Mn _{1/3} O ₂ cathode material for lithium-ion batteries. <i>Journal of Electroanalytical Chemistry</i> , 2018 , 822, 57-65	4.1	25
49	Spinel-embedded and Li ₃ PO ₄ modified Li[Li _{0.2} Mn _{0.54} Ni _{0.13} Co _{0.13}]O ₂ cathode materials for High-Performance Li-Ion batteries. <i>Applied Surface Science</i> , 2018 , 456, 763-770	6.7	38
48	Potentiostatic deposition of nickel cobalt sulfide nanosheet arrays as binder-free electrode for high-performance pseudocapacitor. <i>Ceramics International</i> , 2018 , 44, 15778-15784	5.1	18
47	Electrochemical analysis graphite/electrolyte interface in lithium-ion batteries: p-Toluenesulfonyl isocyanate as electrolyte additive. <i>Nano Energy</i> , 2017 , 34, 131-140	17.1	162
46	Introducing reduced graphene oxide to improve the electrochemical performance of silicon-based materials encapsulated by carbonized polydopamine layer for lithium ion batteries. <i>Materials Letters</i> , 2017 , 195, 164-167	3.3	62
45	A new design concept for preparing nickel-foam-supported metal oxide microspheres with superior electrochemical properties. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 13469-13474	13	86
44	Co ₃ O ₄ /Co nanoparticles enclosed graphitic carbon as anode material for high performance Li-ion batteries. <i>Chemical Engineering Journal</i> , 2017 , 321, 495-501	14.7	143
43	Distinct impact of cobalt salt type on the morphology, microstructure, and electrochemical properties of Co ₃ O ₄ synthesized by ultrasonic spray pyrolysis. <i>Journal of Alloys and Compounds</i> , 2017 , 696, 836-843	5.7	21
42	A short process for the efficient utilization of transition-metal chlorides in lithium-ion batteries: A case of Ni _{0.8} Co _{0.1} Mn _{0.1} O _{1.1} and LiNi _{0.8} Co _{0.1} Mn _{0.1} O ₂ . <i>Journal of Power Sources</i> , 2017 , 342, 495-503	8.9	174
41	Metallurgy Inspired Formation of Homogeneous Al ₂ O ₃ Coating Layer To Improve the Electrochemical Properties of LiNi _{0.8} Co _{0.1} Mn _{0.1} O ₂ Cathode Material. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 10199-10205	8.3	96
40	A compact process to prepare LiNi _{0.8} Co _{0.1} Mn _{0.1} O ₂ cathode material from nickel-copper sulfide ore. <i>Hydrometallurgy</i> , 2017 , 174, 1-9	4	10
39	Improved electrochemical performance of Si/C material based on the interface stability. <i>Journal of Alloys and Compounds</i> , 2017 , 725, 1304-1312	5.7	16
38	Accurate construction of a hierarchical nickel-cobalt oxide multishell yolk-shell structure with large and ultrafast lithium storage capability. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 14996-15001	13	94
37	Graphitic carbon balanced between high plateau capacity and high rate capability for lithium ion capacitors. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 15302-15309	13	66
36	Enhanced electrochemical performance of LiNi _{0.8} Co _{0.1} Mn _{0.1} O ₂ cathode materials obtained by atomization co-precipitation method. <i>Ceramics International</i> , 2016 , 42, 644-649	5.1	31
35	Natural sisal fibers derived hierarchical porous activated carbon as capacitive material in lithium ion capacitor. <i>Journal of Power Sources</i> , 2016 , 329, 339-346	8.9	73
34	One-step synthesis of Li-doped NiO as high-performance anode material for lithium ion batteries. <i>Ceramics International</i> , 2016 , 42, 14565-14572	5.1	31
33	Novel Carbon-Encapsulated Porous SnO ₂ Anode for Lithium-Ion Batteries with Much Improved Cyclic Stability. <i>Small</i> , 2016 , 12, 1945-55	11	207

32	Robust synthesis of hierarchical mesoporous hybrid NiO/MnCo ₂ O ₄ microspheres and their application in Lithium-ion batteries. <i>Electrochimica Acta</i> , 2016 , 191, 392-400	6.7	46
31	Synthesis and electrochemical study of Zr-doped Li[Li _{0.2} Mn _{0.54} Ni _{0.13} Co _{0.13}]O ₂ as cathode material for Li-ion battery. <i>Ceramics International</i> , 2016 , 42, 263-269	5.1	129
30	A MoS ₂ coating strategy to improve the comprehensive electrochemical performance of LiVPO ₄ F. <i>Journal of Power Sources</i> , 2016 , 315, 294-301	8.9	77
29	Synthesis of nanoparticles-assembled Co ₃ O ₄ microspheres as anodes for Li-ion batteries by spray pyrolysis of CoCl ₂ solution. <i>Electrochimica Acta</i> , 2016 , 209, 456-463	6.7	33
28	Improving the electrochemical performance of lithium vanadium fluorophosphate cathode material: Focus on interfacial stability. <i>Journal of Power Sources</i> , 2016 , 329, 553-557	8.9	88
27	Electrochemical properties of LiNi _{0.6} Co _{0.2} Mn _{0.2} O ₂ as cathode material for Li-ion batteries prepared by ultrasonic spray pyrolysis. <i>Materials Letters</i> , 2015 , 159, 39-42	3.3	25
26	A novel NiCo ₂ O ₄ anode morphology for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 11970-11975	13	113
25	Facile general strategy toward hierarchical mesoporous transition metal oxides arrays on three-dimensional macroporous foam with superior lithium storage properties. <i>Nano Energy</i> , 2015 , 13, 77-91	17.1	154
24	Smart construction of three-dimensional hierarchical tubular transition metal oxide core/shell heterostructures with high-capacity and long-cycle-life lithium storage. <i>Nano Energy</i> , 2015 , 12, 437-446	17.1	200
23	Three-dimensional hierarchical Co ₃ O ₄ /CuO nanowire heterostructure arrays on nickel foam for high-performance lithium ion batteries. <i>Nano Energy</i> , 2014 , 6, 19-26	17.1	206
22	Nanosized LiVPO ₄ F/graphene composite: A promising anode material for lithium ion batteries. <i>Journal of Power Sources</i> , 2014 , 251, 325-330	8.9	68
21	Preparation and physicochemical performances of poly[(vinylidene fluoride)-co-hexafluoropropylene]-based composite polymer electrolytes doped with modified carbon nanotubes. <i>Polymer International</i> , 2014 , 63, 307-314	3.3	8
20	Ethylene sulfate as film formation additive to improve the compatibility of graphite electrode for lithium-ion battery. <i>Ionics</i> , 2014 , 20, 795-801	2.7	31
19	Synthesis and characterization of Li ₄ Ti ₅ O ₁₂ /graphene composite as anode material with enhanced electrochemical performance. <i>Ionics</i> , 2013 , 19, 717-723	2.7	14
18	Effects of Al doping for Li[Li _{0.09} Mn _{0.65} *0.91Ni _{0.35} *0.91]O ₂ cathode material. <i>Ionics</i> , 2013 , 19, 1495-1501	2.7	11
17	Synthesis and electrochemical performance of LiNi _{0.6} Co _{0.2} Mn _{0.2} O ₂ /reduced graphene oxide cathode materials for lithium-ion batteries. <i>Ionics</i> , 2013 , 19, 1329-1334	2.7	10
16	A low temperature fluorine substitution on the electrochemical performance of layered LiNi _{0.8} Co _{0.1} Mn _{0.1} O ₂ -Fz cathode materials. <i>Electrochimica Acta</i> , 2013 , 92, 1-8	6.7	81
15	Comparative investigations of LiVPO ₄ F/C and Li ₃ V ₂ (PO ₄) ₃ /C synthesized in similar soft chemical route. <i>Journal of Solid State Electrochemistry</i> , 2013 , 17, 1-8	2.6	31

14	Comprehensive reinvestigation on the initial coulombic efficiency and capacity fading mechanism of $\text{LiNi}_0.5\text{Mn}_1.5\text{O}_4$ at low rate and elevated temperature. <i>Journal of Solid State Electrochemistry</i> , 2013 , 17, 1029-1038	2.6	8
13	Capacity fading reason of $\text{LiNi}_0.5\text{Mn}_1.5\text{O}_4$ with commercial electrolyte. <i>Ionics</i> , 2013 , 19, 379-383	2.7	17
12	Enhanced electrochemical properties of lithium-reactive V_2O_5 coated on the $\text{LiNi}_0.8\text{Co}_0.1\text{Mn}_0.1\text{O}_2$ cathode material for lithium ion batteries at 60 °C. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 1284-1288	13	187
11	Carbonization and graphitization of pitch applied for anode materials of high power lithium ion batteries. <i>Journal of Solid State Electrochemistry</i> , 2013 , 17, 1401-1408	2.6	41
10	Effect of synthesis routes on the electrochemical performance of $\text{Li}[\text{Ni}_0.6\text{Co}_0.2\text{Mn}_0.2]\text{O}_2$ for lithium ion batteries. <i>Journal of Solid State Electrochemistry</i> , 2012 , 16, 3849-3854	2.6	34
9	Storage performance with different charged state of manganese spinel battery. <i>Ionics</i> , 2012 , 18, 643-648	2.7	4
8	Performance of PVDF-HFP-based gel polymer electrolytes with different pore forming agents. <i>Iranian Polymer Journal (English Edition)</i> , 2012 , 21, 755-761	2.3	18
7	Investigation on the storage performance of LiMn_2O_4 at elevated temperature with the mixture of electrolyte stabilizer. <i>Ionics</i> , 2012 , 18, 907-911	2.7	7
6	Properties on novel PVDF-HFP-based composite polymer electrolyte with vinyltrimethoxysilane-modified ZSM-5. <i>Polymer Composites</i> , 2012 , 33, 629-635	3	12
5	Study on performances of ZSM-5 doped P(VDF-HFP) based composite polymer electrolyte prepared by steam bath technique. <i>Iranian Polymer Journal (English Edition)</i> , 2012 , 21, 481-488	2.3	6
4	Hydrogen titanate and TiO_2 nanowires as anode materials for lithium-ion batteries. <i>Journal of Materials Chemistry</i> , 2011 , 21, 12675		53
3	Improving the electrochemical performance of LiMn_2O_4 /graphite batteries using LiF additive during fabrication. <i>Rare Metals</i> , 2011 , 30, 120-125	5.5	6
2	Synthesis, Characterization, and Thermal Stability of $\text{LiNi}_{1/3}\text{Mn}_{1/3}\text{Co}_{1/3}\text{Mg}_2\text{O}_2$, $\text{LiNi}_{1/3}\text{Mn}_{1/3}\text{Co}_{1/3}\text{Mg}_2\text{O}_2$, and $\text{LiNi}_{1/3}\text{Mn}_{1/3}\text{Co}_{1/3}\text{Mg}_2\text{O}_2$ <i>Chemistry of Materials</i> , 2010 , 22, 1164-1172	9.6	91
1	Performance and capacity fading reason of LiMn_2O_4 /graphite batteries after storing at high temperature. <i>Rare Metals</i> , 2009 , 28, 322-327	5.5	7