Xinhai Li

List of Publications by Year in descending order

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Version: 2024-02-01

103	5,657	76322	79691
papers	citations	40 h-index	73 g-index

103	103	103	5879
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Advances in nanostructures fabricatedviaspray pyrolysis and their applications in energy storage and conversion. Chemical Society Reviews, 2019, 48, 3015-3072.	38.1	260
2	Novel Carbonâ€Encapsulated Porous SnO₂ Anode for Lithiumâ€Ion Batteries with Much Improved Cyclic Stability. Small, 2016, 12, 1945-1955.	10.0	247
3	Lightweight Reduced Graphene Oxide@MoS₂ Interlayer as Polysulfide Barrier for High-Performance Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2018, 10, 3707-3713.	8.0	239
4	Three-dimensional hierarchical Co3O4/CuO nanowire heterostructure arrays on nickel foam for high-performance lithium ion batteries. Nano Energy, 2014, 6, 19-26.	16.0	230
5	Smart construction of three-dimensional hierarchical tubular transition metal oxide core/shell heterostructures with high-capacity and long-cycle-life lithium storage. Nano Energy, 2015, 12, 437-446.	16.0	220
6	Enhanced electrochemical properties of lithium-reactive V₂O₅coated on the LiNi_{0.8}Co_{0.1}Mn_{0.1}O₂cathode material for lithium ion batteries at 60 Â°C. Journal of Materials Chemistry A, 2013, 1, 1284-1288.	10.3	209
7	Electrochemical analysis graphite/electrolyte interface in lithium-ion batteries: p-Toluenesulfonyl isocyanate as electrolyte additive. Nano Energy, 2017, 34, 131-140.	16.0	208
8	A short process for the efficient utilization of transition-metal chlorides in lithium-ion batteries: A case of Ni0.8Co0.1Mn0.1O1.1 and LiNi0.8Co0.1Mn0.1O2. Journal of Power Sources, 2017, 342, 495-503.	7.8	203
9	Co 3 O 4 /Co nanoparticles enclosed graphitic carbon as anode material for high performance Li-ion batteries. Chemical Engineering Journal, 2017, 321, 495-501.	12.7	173
10	Facile general strategy toward hierarchical mesoporous transition metal oxides arrays on three-dimensional macroporous foam with superior lithium storage properties. Nano Energy, 2015, 13, 77-91.	16.0	164
11	Synthesis and electrochemical study of Zr-doped Li[Li0.2Mn0.54Ni0.13Co0.13]O2 as cathode material for Li-ion battery. Ceramics International, 2016, 42, 263-269.	4.8	140
12	Metallurgy Inspired Formation of Homogeneous Al₂O₃ Coating Layer To Improve the Electrochemical Properties of LiNi_{0.8}Co_{0.1}Mn_{0.1}O₂ Cathode Material. ACS Sustainable Chemistry and Engineering, 2017, 5, 10199-10205.	6.7	131
13	A novel NiCo₂O₄ anode morphology for lithium-ion batteries. Journal of Materials Chemistry A, 2015, 3, 11970-11975.	10.3	127
14	Li3V(MoO4)3 as a novel electrode material with good lithium storage properties and improved initial coulombic efficiency. Nano Energy, 2018, 44, 272-278.	16.0	125
15	Accurate construction of a hierarchical nickelâ€“cobalt oxide multishell yolkâ€“shell structure with large and ultrafast lithium storage capability. Journal of Materials Chemistry A, 2017, 5, 14996-15001.	10.3	106
16	Natural sisal fibers derived hierarchical porous activated carbon as capacitive material in lithium ion capacitor. Journal of Power Sources, 2016, 329, 339-346.	7.8	101
17	A low temperature fluorine substitution on the electrochemical performance of layered LiNi0.8Co0.1Mn0.1O2â^'zFz cathode materials. Electrochimica Acta, 2013, 92, 1-8.	5.2	100
18	Synthesis, Characterization, and Thermal Stability of LiNi_{1/3}Mn_{1/3}Co_{1/3â^'z}Mg_zO₂, LiNi_{1/3â^'z}Mn_{1/3}Co_{1/3}Mg_zO₂, and LiNi_{1/3}Mn_{1/3â^'z}Co_{1/3}Mg_zO₂. Chemistry of Materials, 2010, 22, 1164-1172.	6.7	96

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19	Improving the electrochemical performance of lithium vanadium fluorophosphate cathode material: Focus on interfacial stability. Journal of Power Sources, 2016, 329, 553-557.	7.8	94
20	A new design concept for preparing nickel-foam-supported metal oxide microspheres with superior electrochemical properties. Journal of Materials Chemistry A, 2017, 5, 13469-13474.	10.3	91
21	Graphitic carbon balanced between high plateau capacity and high rate capability for lithium ion capacitors. Journal of Materials Chemistry A, 2017, 5, 15302-15309.	10.3	91
22	A MoS2 coating strategy to improve the comprehensive electrochemical performance of LiVPO4F. Journal of Power Sources, 2016, 315, 294-301.	7.8	83
23	Research Progress of Singleâ€Crystal Nickelâ€Rich Cathode Materials for Lithium Ion Batteries. Small Methods, 2021, 5, e2100234.	8.6	71
24	Nanosized LiVPO4F/graphene composite: A promising anode material for lithium ion batteries. Journal of Power Sources, 2014, 251, 325-330.	7.8	70
25	Introducing reduced graphene oxide to improve the electrochemical performance of silicon-based materials encapsulated by carbonized polydopamine layer for lithium ion batteries. Materials Letters, 2017, 195, 164-167.	2.6	69
26	Fluidized bed reaction towards crystalline embedded amorphous Si anode with much enhanced cycling stability. Chemical Communications, 2018, 54, 3755-3758.	4.1	66
27	Lithiophilic Ag/Li composite anodes via a spontaneous reaction for Li nucleation with a reduced barrier. Journal of Materials Chemistry A, 2019, 7, 20911-20918.	10.3	66
28	Anchoring K⁺ in Li⁺ Sites of LiNi_{0.8}Co_{0.15}Al_{0.05}O₂ Cathode Material to Suppress its Structural Degradation During Highâ€Voltage Cycling. Energy Technology, 2018, 6, 2358-2366.	3.8	64
29	Facile construction of Co(OH)2@Ni(OH)2 core-shell nanosheets on nickel foam as three dimensional free-standing electrode for supercapacitors. Electrochimica Acta, 2019, 293, 40-46.	5.2	61
30	Improving rate capability and decelerating voltage decay of Li-rich layered oxide cathodes by chromium doping. International Journal of Hydrogen Energy, 2018, 43, 11109-11119.	7.1	60
31	Hydrogen titanate and TiO2 nanowires as anode materials for lithium-ion batteries. Journal of Materials Chemistry, 2011, 21, 12675.	6.7	55
32	Suppressing the Voltage Decay and Enhancing the Electrochemical Performance of Li_{1.2}Mn_{0.54}Co_{0.13}Ni_{0.13}O₂ by Multifunctional Nb₂O₅ Coating. Energy Technology, 2018, 6, 2139-2145.	3.8	54
33	Carbonization and graphitization of pitch applied for anode materials of high power lithium ion batteries. Journal of Solid State Electrochemistry, 2013, 17, 1401-1408.	2.5	52
34	Robust synthesis of hierarchical mesoporous hybrid NiOâ€“MnCo2O4 microspheres and their application in Lithium-ion batteries. Electrochimica Acta, 2016, 191, 392-400.	5.2	50
35	Ethylene sulfate as film formation additive to improve the compatibility of graphite electrode for lithium-ion battery. Ionics, 2014, 20, 795-801.	2.4	47
36	Spinel-embedded and Li3PO4 modified Li[Li0.2Mn0.54Ni0.13Co0.13]O2 cathode materials for High-Performance Li-Ion battries. Applied Surface Science, 2018, 456, 763-770.	6.1	47

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37	Cooperation of nitrogen-doping and catalysis to improve the Li-ion storage performance of lignin-based hard carbon. Journal of Energy Chemistry, 2018, 27, 1390-1396.	12.9	46
38	The role of a MnO2 functional layer on the surface of Ni-rich cathode materials: Towards enhanced chemical stability on exposure to air. Ceramics International, 2018, 44, 13341-13348.	4.8	44
39	One-step synthesis of Li-doped NiO as high-performance anode material for lithium ion batteries. Ceramics International, 2016, 42, 14565-14572.	4.8	42
40	Effect of synthesis routes on the electrochemical performance of Li[Ni0.6Co0.2Mn0.2]O2 for lithium ion batteries. Journal of Solid State Electrochemistry, 2012, 16, 3849-3854.	2.5	40
41	Effects of Nb doping on the performance of 0.5Li2MnO3Â·0.5LiNi1/3Co1/3Mn1/3O2 cathode material for lithium-ion batteries. Journal of Electroanalytical Chemistry, 2018, 822, 57-65.	3.8	40
42	Evolution of the morphology, structural and thermal stability of LiCoO2 during overcharge. Journal of Energy Chemistry, 2021, 55, 524-532.	12.9	40
43	Enhanced electrochemical performance of LiNi0.8Co0.1Mn0.1O2 cathode materials obtained by atomization co-precipitation method. Ceramics International, 2016, 42, 644-649.	4.8	39
44	Spiral Graphene Coupling Hierarchically Porous Carbon Advances Dual-Carbon Lithium Ion Capacitor. Energy Storage Materials, 2021, 38, 528-534.	18.0	39
45	Synthesis of nanoparticles-assembled Co 3 O 4 microspheres as anodes for Li-ion batteries by spray pyrolysis of CoCl 2 solution. Electrochimica Acta, 2016, 209, 456-463.	5.2	36
46	Oxygen-induced lithiophilicity of tin-based framework toward highly stable lithium metal anode. Chemical Engineering Journal, 2020, 394, 124848.	12.7	36
47	Comparative investigations of LiVPO4F/C and Li3V2(PO4)3/C synthesized in similar soft chemical route. Journal of Solid State Electrochemistry, 2013, 17, 1-8.	2.5	34
48	A novel dried plum-like yolkâ€“shell architecture of tin oxide nanodots embedded into a carbon matrix: ultra-fast assembly and superior lithium storage properties. Journal of Materials Chemistry A, 2019, 7, 5803-5810.	10.3	34
49	Bifunctional Li6CoO4 serving as prelithiation reagent and pseudocapacitive electrode for lithium ion capacitors. Journal of Energy Chemistry, 2020, 47, 38-45.	12.9	33
50	Atomic layer deposition-strengthened lithiophilicity of ultrathin TiO2 film decorated Cu foil for stable lithium metal anode. Journal of Power Sources, 2020, 463, 228157.	7.8	33
51	New insight into the electrodeposition of NiCo layered double hydroxide and its capacitive evaluation. Electrochimica Acta, 2020, 336, 135734.	5.2	33
52	In-situ tailored 3D Li2O@Cu nanowires array enabling stable lithium metal anode with ultra-high coulombic efficiency. Journal of Power Sources, 2020, 463, 228178.	7.8	33
53	Electrochemical properties of LiNi0.6Co0.2Mn0.2O2 as cathode material for Li-ion batteries prepared by ultrasonic spray pyrolysis. Materials Letters, 2015, 159, 39-42.	2.6	32
54	An Ostwald ripening route towards Ni-rich layered cathode material with cobalt-rich surface for lithium ion battery. Science China Materials, 2018, 61, 719-727.	6.3	32

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55	High-Value Utilization of Lignin To Prepare Functional Carbons toward Advanced Lithium-Ion Capacitors. ACS Sustainable Chemistry and Engineering, 2020, 8, 11522-11531.	6.7	32
56	Self-sacrificial-reaction guided formation of hierarchical electronic/ionic conductive shell enabling high-performance nano-silicon anode. Chemical Engineering Journal, 2021, 415, 128998.	12.7	31
57	Distinct impact of cobalt salt type on the morphology, microstructure, and electrochemical properties of Co3O4 synthesized by ultrasonic spray pyrolysis. Journal of Alloys and Compounds, 2017, 696, 836-843.	5.5	29
58	Potentiostatic deposition of nickel cobalt sulfide nanosheet arrays as binder-free electrode for high-performance pseudocapacitor. Ceramics International, 2018, 44, 15778-15784.	4.8	28
59	Systematic parameter acquisition method for electrochemical model of 4.35â€V LiCoO2 batteries. Solid State Ionics, 2019, 343, 115083.	2.7	28
60	Spray pyrolysis synthesis of nickel-rich layered cathodes LiNi 1â^'2 x Co x Mn x O 2 (x â€¯=â€¯0.075, 0.05, 0.025) for lithium-ion batteries. Journal of Energy Chemistry, 2018, 27, 447-450.	12.9	27
61	Structural and electrochemical characterization of NH4F-pretreated lithium-rich layered Li[Li0.2Ni0.13Co0.13Mn0.54]O2 cathodes for lithium-ion batteries. Ceramics International, 2018, 44, 14370-14376.	4.8	27
62	Smartly tailored Co(OH)2-Ni(OH)2 heterostucture on nickel foam as binder-free electrode for high-energy hybrid capacitors. Electrochimica Acta, 2019, 309, 140-147.	5.2	27
63	The Electrochemical Performance and Reaction Mechanism of Coated Titanium Anodes for Manganese Electrowinning. Journal of the Electrochemical Society, 2019, 166, E502-E511.	2.9	24
64	Performance of PVDF-HFP-based gel polymer electrolytes with different pore forming agents. Iranian Polymer Journal (English Edition), 2012, 21, 755-761.	2.4	21
65	Improved electrochemical performance of Si/C material based on the interface stability. Journal of Alloys and Compounds, 2017, 725, 1304-1312.	5.5	21
66	Modification of Li[Li0.2Mn0.54Ni0.13Co0.13]O2 cathode with Î±-MoO3 via a simple wet chemical coating process. Applied Surface Science, 2019, 479, 1277-1286.	6.1	21
67	Synthesis and characterization of Li4Ti5O12/graphene composite as anode material with enhanced electrochemical performance. Ionics, 2013, 19, 717-723.	2.4	20
68	Incorporating multifunctional LiAlSiO4 into polyethylene oxide for high-performance solid-state lithium batteries. Journal of Energy Chemistry, 2021, 53, 116-123.	12.9	20
69	Capacity fading reason of LiNi0.5Mn1.5O4 with commercial electrolyte. Ionics, 2013, 19, 379-383.	2.4	19
70	FeCox alloy nanoparticles encapsulated in three-dimensionally N-doped porous carbon/multiwalled carbon nanotubes composites as bifunctional electrocatalyst for zinc-air battery. Journal of Power Sources, 2019, 438, 227019.	7.8	18
71	Improving the electrochemical performance of Li-rich Li1.2Ni0.13Co0.13Mn0.54O2 cathode material by LiF coating. Ionics, 2018, 24, 3717-3724.	2.4	17
72	Manipulating the Composition and Structure of Solid Electrolyte Interphase at Graphite Anode by Adjusting the Formation Condition. Energy Technology, 2019, 7, 1900273.	3.8	17

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73	A novel hierarchical precursor of densely integrated hydroxide nanoflakes on oxide microspheres toward high-performance layered Ni-rich cathode for lithium ion batteries. Materials Chemistry Frontiers, 2018, 2, 1822-1828.	5.9	14
74	Vital effect of sufficient vulcanization on the properties of Ni-Co-S/graphene composites for supercapacitor. Chemical Engineering Science, 2020, 221, 115709.	3.8	14
75	A compact process to prepare LiNi 0.8 Co 0.1 Mn 0.1 O 2 cathode material from nickel-copper sulfide ore. Hydrometallurgy, 2017, 174, 1-9.	4.3	13
76	Controlled Synthesis of NixCoyS4/rGO Composites for Constructing High-Performance Asymmetric Supercapacitor. Frontiers in Materials, 2019, 6, .	2.4	13
77	Properties on novel PVDFâ€HFPâ€based composite polymer electrolyte with vinyltrimethoxylsilaneâ€modified ZSMâ€5. Polymer Composites, 2012, 33, 629-635.	4.6	12
78	Effects of Al doping for Li[Li0.09Mn0.65*0.91Ni0.35*0.91]O2 cathode material. Ionics, 2013, 19, 1495-1501.	2.4	12
79	Synthesis and electrochemical performance of LiNi0.6Co0.2Mn0.2O2/reduced graphene oxide cathode materials for lithium-ion batteries. Ionics, 2013, 19, 1329-1334.	2.4	12
80	A smart architecture of nickel-cobalt sulfide nanotubes assembled nanoclusters for high-performance pseudocapacitor. Journal of Alloys and Compounds, 2018, 765, 505-511.	5.5	12
81	Magnesium-doped Li[Li0.2Mn0.54Ni0.13Co0.13]O2 cathode with high rate capability and improved cyclic stability. Ionics, 2019, 25, 1967-1977.	2.4	12
82	The influences of SO42â˜' from electrolytic manganese dioxide precursor on the electrochemical properties of Li-rich Mn-based material for Li-ion batteries. Ionics, 2019, 25, 2585-2594.	2.4	12
83	Clearing surficial charge-transport obstacles to boost the performance of lithium-rich layered oxides. Chemical Engineering Journal, 2020, 399, 125142.	12.7	12
84	Bulk and surface reconstructed Li-rich Mn-based cathode material for lithium ion batteries with eliminating irreversible capacity loss. Journal of Electroanalytical Chemistry, 2018, 829, 7-15.	3.8	11
85	Performance and capacity fading reason of LiMn2O4/graphite batteries after storing at high temperature. Rare Metals, 2009, 28, 322-327.	7.1	10
86	Three-dimensionally mesoporous dual (Co, Fe) metal oxide/CNTs composite as electrocatalysts for air cathodes in Li-O2 batteries. Ceramics International, 2018, 44, 21942-21949.	4.8	10
87	BODIPY-Based Conjugated Porous Polymer and Its Derived Porous Carbon for Lithium-Ion Storage. ACS Omega, 2018, 3, 7727-7735.	3.5	10
88	Modification by simultaneously Î³-WO3/Li2WO4 composite coating and spinel-structure formation on Li[Li0.2Mn0.54Ni0.13Co0.13]O2 cathode via a simple wet process. Journal of Alloys and Compounds, 2019, 790, 421-432.	5.5	10
89	Mitigating the voltage fading and air sensitivity of O3-type NaNi0.4Mn0.4Cu0.1Ti0.1O2 cathode material via La doping. Chemical Engineering Journal, 2022, 431, 133456.	12.7	10
90	Preparation and physicochemical performances of poly[(vinylidene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 67 Td (fluoride)â€coâ€ carbon nanotubes. Polymer International, 2014, 63, 307-314.	3.1	9

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91	Compact structured silicon/carbon composites as high-performance anodes for lithium ion batteries. Ionics, 2018, 24, 3405-3411.	2.4	9
92	Modification on improving the structural stabilities and cyclic properties of Li1.2Mn0.54Ni0.13Co0.13O2 cathode materials with CePO4. Ionics, 2020, 26, 2117-2127.	2.4	9
93	Study on performances of ZSM-5 doped P(VDF-HFP) based composite polymer electrolyte prepared by steam bath technique. Iranian Polymer Journal (English Edition), 2012, 21, 481-488.	2.4	8
94	Comprehensive reinvestigation on the initial coulombic efficiency and capacity fading mechanism of LiNi0.5Mn1.5O4 at low rate and elevated temperature. Journal of Solid State Electrochemistry, 2013, 17, 1029-1038.	2.5	8
95	Superior lithium storage of Si/WSi2 composite prepared via one step co-reduction of multi-phase oxide. Journal of Electroanalytical Chemistry, 2018, 826, 84-89.	3.8	8
96	Monoâ€Active Bimetallic Oxide Co₂AlO₄ with Yolkâ€Shell Structure as a Superior Lithiumâ€Storage Material. ChemElectroChem, 2019, 6, 3298-3302.	3.4	8
97	Improving the electrochemical performance of LiMn2O4/graphite batteries using LiF additive during fabrication. Rare Metals, 2011, 30, 120-125.	7.1	7
98	Investigation on the storage performance of LiMn2O4 at elevated temperature with the mixture of electrolyte stabilizer. Ionics, 2012, 18, 907-911.	2.4	7
99	A Renewable Sedimentary Slurry Battery: Preliminary Study in Zinc Electrodes. IScience, 2020, 23, 101821.	4.1	6
100	First-Principle Study of a ZnS/Graphene Heterostructure as a Promising Anode Material for Lithium-Ion Batteries. Energy & Fuels, 2022, 36, 677-683.	5.1	5
101	Storage performance with different charged state of manganese spinel battery. Ionics, 2012, 18, 643-648.	2.4	4
102	Improving the Desulfurization Degree of High-Grade Nickel Matte via a Two-Step Oxidation Roasting Process. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018, 49, 1834-1840.	2.1	4
103	First principles calculation of Li2+2xZn1-xSiO4 (xÂ=Â0.125â€“0.5) as solid electrolyte for lithium-ion battery. Solid State Ionics, 2021, 371, 115767.	2.7	3