Zhixing Wang

List of Publications by Year
in descending order

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105 papers	5,784 citations	76326 40 h-index	79698 73 g-index
105 all docs	105 docs citations	105 times ranked	5642 citing authors

#	Article	IF	Citations
1	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
2	Spiral Graphene Coupling Hierarchically Porous Carbon Advances Dual-Carbon Lithium Ion Capacitor. Energy Storage Materials, 2021, 38, 528-534.	18.0	39
3	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
4	Research Progress of Singleâ€Crystal Nickelâ€Rich Cathode Materials for Lithium Ion Batteries. Small Methods, 2021, 5, e2100234.	8.6	71
5	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
6	Bifunctional Li6CoO4 serving as prelithiation reagent and pseudocapacitive electrode for lithium ion capacitors. Journal of Energy Chemistry, 2020, 47, 38-45.	12.9	33
7	Accurate regulation of pore distribution and atomic arrangement enabling highly efficient dual-carbon lithium ion capacitors. Journal of Materials Chemistry A, 2020, 8, 22230-22239.	10.3	7
8	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
9	A Renewable Sedimentary Slurry Battery: Preliminary Study in Zinc Electrodes. IScience, 2020, 23, 101821.	4.1	6
10	Graphitic nanorings for super-long lifespan lithium-ion capacitors. Nano Research, 2020, 13, 2909-2916.	10.4	14
11	One-step potentiostatic electrodeposition of cross-linked bimetallic sulfide nanosheet thin film for supercapacitors. Ionics, 2020, 26, 4095-4102.	2.4	9
12	Oxygen-induced lithiophilicity of tin-based framework toward highly stable lithium metal anode. Chemical Engineering Journal, 2020, 394, 124848.	12.7	36
13	Effect of copper and iron substitution on the structures and electrochemical properties of LiNi 0.8 Co 0.15 Al 0.05 O 2 cathode materials. Energy Science and Engineering, 2020, 8, 1868-1879.	4.0	11
14	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
15	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
16	Clearing surficial charge-transport obstacles to boost the performance of lithium-rich layered oxides. Chemical Engineering Journal, 2020, 399, 125142.	12.7	12
17	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
18	Novel LiV(PO₄)_{0.9}F_{1.3} with ultrahigh rate capability and prolonged cycle life. Chemical Communications, 2019, 55, 11175-11178.	4.1	8

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19	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
20	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
21	Non-aqueous dual-carbon lithium-ion capacitors: a review. Journal of Materials Chemistry A, 2019, 7, 15541-15563.	10.3	118
22	Monoâ€Active Bimetallic Oxide Co₂AlO₄ with Yolkâ€Shell Structure as a Superior Lithiumâ€Storage Material. ChemElectroChem, 2019, 6, 3298-3302.	3.4	8
23	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
24	Advances in nanostructures fabricatedviaspray pyrolysis and their applications in energy storage and conversion. Chemical Society Reviews, 2019, 48, 3015-3072.	38.1	260
25	Hydrometallurgical production of LiNi0.80Co0.15Al0.05O2 cathode material from high-grade nickel matte. Hydrometallurgy, 2019, 186, 30-41.	4.3	23
26	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
27	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
28	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
29	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
30	Systematic parameter acquisition method for electrochemical model of 4.35â€V LiCoO2 batteries. Solid State Ionics, 2019, 343, 115083.	2.7	28
31	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
32	Metalorganic Quantum Dots and Their Grapheneâ€Like Derivative Porous Graphitic Carbon for Advanced Lithiumâ€Ion Hybrid Supercapacitor. Advanced Energy Materials, 2019, 9, 1802878.	19.5	94
33	Enhancing the electrochemical and storage performance of Ni-based cathode materials by introducing spinel pillaring layer for lithium ion batteries. Solid State Ionics, 2019, 332, 41-46.	2.7	11
34	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
35	Compact structured silicon/carbon composites as high-performance anodes for lithium ion batteries. Ionics, 2018, 24, 3405-3411.	2.4	9
36	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

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37	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
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	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
40	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
41	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
42	Fluidized bed reaction towards crystalline embedded amorphous Si anode with much enhanced cycling stability. Chemical Communications, 2018, 54, 3755-3758.	4.1	66
43	Multi-layered carbon coated Si-based composite as anode for lithium-ion batteries. Powder Technology, 2018, 323, 294-300.	4.2	97
44	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
45	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
46	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
47	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
48	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
49	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
50	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
51	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
52	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
53	BODIPY-Based Conjugated Porous Polymer and Its Derived Porous Carbon for Lithium-Ion Storage. ACS Omega, 2018, 3, 7727-7735.	3.5	10
54	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

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55	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
56	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
57	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
58	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
59	Electrochemical analysis graphite/electrolyte interface in lithium-ion batteries: p-Toluenesulfonyl isocyanate as electrolyte additive. Nano Energy, 2017, 34, 131-140.	16.0	208
60	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
61	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
62	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
63	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
64	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
65	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
66	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
67	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
68	A MoS2 coating strategy to improve the comprehensive electrochemical performance of LiVPO4F. Journal of Power Sources, 2016, 315, 294-301.	7.8	83
69	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
70	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
71	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
72	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

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73	Investigation and improvement on the electrochemical performance and storage characteristics of LiNiO2-based materials for lithium ion battery. Electrochimica Acta, 2016, 191, 832-840.	5.2	131
74	Co-modification of LiNi0.5Co0.2Mn0.3O2 cathode materials with zirconium substitution and surface polypyrrole coating: towards superior high voltage electrochemical performances for lithium ion batteries. Electrochimica Acta, 2016, 196, 101-109.	5.2	83
75	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
76	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
77	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
78	A novel NiCo₂O₄ anode morphology for lithium-ion batteries. Journal of Materials Chemistry A, 2015, 3, 11970-11975.	10.3	127
79	Electrochemical analysis for cycle performance and capacity fading of lithium manganese oxide spinel cathode at elevated temperature using p-toluenesulfonyl isocyanate as electrolyte additive. Electrochimica Acta, 2015, 180, 815-823.	5.2	32
80	Beneficial effects of 1-propylphosphonic acid cyclic anhydride as an electrolyte additive on the electrochemical properties of LiNi0.5Mn1.5O4 cathode material. Journal of Power Sources, 2014, 263, 231-238.	7.8	64
81	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
82	A comprehensive study on electrochemical performance of Mn-surface-modified LiNi0.8Co0.15Al0.05O2 synthesized by an in situ oxidizing-coating method. Journal of Power Sources, 2014, 252, 200-207.	7.8	125
83	Nanosized LiVPO4F/graphene composite: A promising anode material for lithium ion batteries. Journal of Power Sources, 2014, 251, 325-330.	7.8	70
84	Preparation and physicochemical performances of poly[(vinylidene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 307 Td (fluoride)â€coâ carbon nanotubes. Polymer International, 2014, 63, 307-314.	3.1	9
85	Synthesis and characterization of Li4Ti5O12/graphene composite as anode material with enhanced electrochemical performance. Ionics, 2013, 19, 717-723.	2.4	20
86	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
87	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
88	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
89	Washing effects on electrochemical performance and storage characteristics of LiNi0.8Co0.1Mn0.1O2 as cathode material for lithium-ion batteries. Journal of Power Sources, 2013, 222, 318-325.	7.8	317
90	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

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91	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
92	A modified LiF coating process to enhance the electrochemical performance characteristics of LiNi0.8Co0.1Mn0.1O2 cathode materials. Materials Letters, 2013, 110, 4-9.	2.6	133
93	Enhancement of electrochemical performance of Al-doped LiVPO4F using AlF3 as aluminum source. Journal of Alloys and Compounds, 2013, 581, 836-842.	5.5	38
94	Capacity fading reason of LiNi0.5Mn1.5O4 with commercial electrolyte. Ionics, 2013, 19, 379-383.	2.4	19
95	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
96	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
97	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
98	Storage performance with different charged state of manganese spinel battery. Ionics, 2012, 18, 643-648.	2.4	4
99	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
100	Investigation on the storage performance of LiMn2O4 at elevated temperature with the mixture of electrolyte stabilizer. Ionics, 2012, 18, 907-911.	2.4	7
101	Properties on novel PVDFâ€HFPâ€based composite polymer electrolyte with vinyltrimethoxylsilaneâ€modified ZSMâ€5. Polymer Composites, 2012, 33, 629-635.	4.6	12
102	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
103	Hydrogen titanate and TiO2 nanowires as anode materials for lithium-ion batteries. Journal of Materials Chemistry, 2011, 21, 12675.	6.7	55
104	Improving the electrochemical performance of LiMn2O4/graphite batteries using LiF additive during fabrication. Rare Metals, 2011, 30, 120-125.	7.1	7
105	Performance and capacity fading reason of LiMn2O4/graphite batteries after storing at high temperature. Rare Metals, 2009, 28, 322-327.	7.1	10