Xinqun Cheng

List of Publications by Year
in descending order

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105 papers	5,393 citations	66315 42 h-index	91828 69 g-index
106 all docs	106 docs citations	106 times ranked	6183 citing authors

#	Article	IF	Citations
1	Superior performance of ordered macroporous TiNb 2 O 7 anodes for lithium ion batteries: Understanding from the structural and pseudocapacitive insights on achieving high rate capability. Nano Energy, 2017, 34, 15-25.	8.2	351
2	Understanding undesirable anode lithium plating issues in lithium-ion batteries. RSC Advances, 2016, 6, 88683-88700.	1.7	292
3	ZIFâ€8 with Ferrocene Encapsulated: A Promising Precursor to Singleâ€Atom Fe Embedded Nitrogenâ€Doped Carbon as Highly Efficient Catalyst for Oxygen Electroreduction. Small, 2018, 14, e1704282.	5.2	202
4	Nanosized core/shell silicon@carbon anode material for lithium ion batteries with polyvinylidene fluoride as carbon source. Journal of Materials Chemistry, 2010, 20, 3216.	6.7	168
5	Pseudocapacitive Li+ intercalation in porous Ti2Nb10O29 nanospheres enables ultra-fast lithium storage. Energy Storage Materials, 2018, 11, 57-66.	9.5	163
6	High-rate capability of three-dimensionally ordered macroporous T-Nb2O5 through Li+ intercalation pseudocapacitance. Journal of Power Sources, 2017, 361, 80-86.	4.0	139
7	Fluoroethylene carbonate as electrolyte additive to improve low temperature performance of LiFePO4 electrode. Electrochimica Acta, 2013, 87, 466-472.	2.6	137
8	Improved electrochemical performance of micro-sized SiO-based composite anode by prelithiation of stabilized lithium metal powder. Journal of Power Sources, 2017, 347, 170-177.	4.0	129
9	Enabling reliable lithium metal batteries by a bifunctional anionic electrolyte additive. Energy Storage Materials, 2018, 11, 197-204.	9.5	117
10	Facile synthesis of nanostructured TiNb₂O₇ anode materials with superior performance for high-rate lithium ion batteries. Chemical Communications, 2015, 51, 17293-17296.	2.2	108
11	Lithium-rich Li_{1.2}Ni_{0.13}Co_{0.13}Mn_{0.54}O₂ oxide coated by Li₃PO₄ and carbon nanocomposite layers as high performance cathode materials for lithium ion batteries. Journal of Materials Chemistry A, 2015, 3, 2634-2641.	5.2	103
12	Oxygen vacancies in SnO2 surface coating to enhance the activation of layered Li-Rich Li1.2Mn0.54Ni0.13Co0.13O2 cathode material for Li-ion batteries. Journal of Power Sources, 2016, 331, 91-99.	4.0	95
13	A two-dimensional nitrogen-rich carbon/silicon composite as high performance anode material for lithium ion batteries. Chemical Engineering Journal, 2018, 341, 37-46.	6.6	95
14	A Mild Surface Washing Method Using Protonated Polyaniline for Ni-rich LiNi0.8Co0.1Mn0.1O2 Material of Lithium Ion Batteries. Electrochimica Acta, 2017, 248, 534-540.	2.6	89
15	Micro-sized spherical silicon@carbon@graphene prepared by spray drying as anode material for lithium-ion batteries. Journal of Alloys and Compounds, 2017, 723, 434-440.	2.8	89
16	Capacity fading mechanism during long-term cycling of over-discharged LiCoO2/mesocarbon microbeads battery. Journal of Power Sources, 2015, 293, 1006-1015.	4.0	88
17	Facilitating the redox reaction of polysulfides by an electrocatalytic layer-modified separator for lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2017, 5, 10936-10945.	5.2	87
18	Polyaniline-encapsulated silicon on three-dimensional carbon nanotubes foam with enhanced electrochemical performance for lithium-ion batteries. Journal of Power Sources, 2018, 381, 156-163.	4.0	80

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19	High-performance LiFePO4 cathode material from FePO4 microspheres with carbon nanotube networks embedded for lithium ion batteries. Journal of Power Sources, 2013, 223, 100-106.	4.0	75
20	An Li-rich oxide cathode material with mosaic spinel grain and a surface coating for high performance Li-ion batteries. Journal of Materials Chemistry A, 2014, 2, 15640.	5.2	75
21	Engineering Molecular Polymerization for Templateâ€Free SiO_x/C Hollow Spheres as Ultrastable Anodes in Lithiumâ€Ion Batteries. Advanced Functional Materials, 2021, 31, 2101145.	7.8	74
22	State of health diagnosis model for lithium ion batteries based onÂreal-time impedance and open circuit voltage parameters identification method. Energy, 2018, 144, 647-656.	4.5	69
23	Highly efficient and stable nonplatinum anode catalyst with Au@Pd coreâ€“shell nanostructures for methanol electrooxidation. Journal of Catalysis, 2012, 295, 217-222.	3.1	68
24	1,3,6-Hexanetricarbonitrile as electrolyte additive for enhancing electrochemical performance of high voltage Li-rich layered oxide cathode. Journal of Power Sources, 2017, 361, 227-236.	4.0	68
25	Effect of ZnO modification on the performance of LiNi0.5Co0.25Mn0.25O2 cathode material. Electrochimica Acta, 2009, 54, 5796-5803.	2.6	66
26	Synthesis and characterization of carbon-coated LiNi1/3Co1/3Mn1/3O2 cathode material prepared by polyvinyl alcohol pyrolysis route. Journal of Alloys and Compounds, 2009, 473, 53-59.	2.8	64
27	Improved electrochemical performance and capacity fading mechanism of nano-sized LiMn_{0.9}Fe_{0.1}PO₄ cathode modified by polyacene coating. Journal of Materials Chemistry A, 2015, 3, 1569-1579.	5.2	64
28	Free-Standing Sandwich-Type Graphene/Nanocellulose/Silicon Laminar Anode for Flexible Rechargeable Lithium Ion Batteries. ACS Applied Materials & Interfaces, 2018, 10, 29638-29646.	4.0	63
29	Al2O3 Coated Concentration-Gradient Li[Ni0.73Co0.12Mn0.15]O2 Cathode Material by Freeze Drying for Long-Life Lithium Ion Batteries. Electrochimica Acta, 2015, 174, 1185-1191.	2.6	61
30	Electronically Conductive Sb-doped SnO 2 Nanoparticles Coated LiNi 0.8 Co 0.15 Al 0.05 O 2 Cathode Material with Enhanced Electrochemical Properties for Li-ion Batteries. Electrochimica Acta, 2017, 236, 273-279.	2.6	61
31	Progressive concentration gradient nickel-rich oxide cathode material for high-energy and long-life lithium-ion batteries. Journal of Materials Chemistry A, 2019, 7, 7728-7735.	5.2	61
32	The effects of LiBOB additive for stable SEI formation of PP13TFSI-organic mixed electrolyte in lithium ion batteries. Electrochimica Acta, 2011, 56, 4841-4848.	2.6	53
33	A facile strategy to prepare nano-crystalline Li4Ti5O12/C anode material via polyvinyl alcohol as carbon source for high-rate rechargeable Li-ion batteries. Electrochimica Acta, 2013, 93, 173-178.	2.6	53
34	Changes of Degradation Mechanisms of LiFePO4/Graphite Batteries Cycled at Different Ambient Temperatures. Electrochimica Acta, 2017, 237, 248-258.	2.6	51
35	Hierarchical ordered macroporous/ultrathin mesoporous carbon architecture: A promising cathode scaffold with excellent rate performance for rechargeable Li-O2 batteries. Carbon, 2017, 118, 139-147.	5.4	50
36	Enhancement of high voltage cycling performance and thermal stability of LiNi1/3Co1/3Mn1/3O2 cathode by use of boron-based additives. Solid State Ionics, 2014, 263, 146-151.	1.3	47

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37	Unravelling the Interface Layer Formation and Gas Evolution/Suppression on a TiNb₂O₇ Anode for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2018, 10, 27056-27062.	4.0	47
38	Influence of fluoroethylene carbonate as co-solvent on the high-voltage performance of LiNi1/3Co1/3Mn1/3O2 cathode for lithium-ion batteries. Electrochimica Acta, 2016, 191, 8-15.	2.6	45
39	Hydrothermal-assisted sol-gel synthesis of Li4Ti5O12/C nano-composite for high-energy lithium-ion batteries. Solid State Ionics, 2013, 244, 52-56.	1.3	44
40	Changing of SEI Film and Electrochemical Properties about MCMB Electrodes during Long-Term Charge/Discharge Cycles. Journal of the Electrochemical Society, 2013, 160, A2093-A2099.	1.3	44
41	A New Anion Receptor for Improving the Interface between Lithium- and Manganese-Rich Layered Oxide Cathode and the Electrolyte. Chemistry of Materials, 2017, 29, 2141-2149.	3.2	44
42	Ascorbic acid-assisted solvothermal synthesis of LiMn 0.9 Fe 0.1 PO 4 /C nanoplatelets with enhanced electrochemical performance for lithium ion batteries. Journal of Power Sources, 2013, 243, 872-879.	4.0	43
43	Simple annealing process for performance improvement of silicon anode based on polyvinylidene fluoride binder. Journal of Power Sources, 2010, 195, 2069-2073.	4.0	42
44	Effect of Ag additive on the performance of LiNi1/3Co1/3Mn1/3O2 cathode material for lithium ion battery. Journal of Power Sources, 2009, 189, 2-8.	4.0	41
45	Amorphous carbon-encapsulated Si nanoparticles loading on MCMB with sandwich structure for lithium ion batteries. Electrochimica Acta, 2019, 306, 590-598.	2.6	41
46	A novel nanoporous Fe-doped lithium manganese phosphate material with superior long-term cycling stability for lithium-ion batteries. Nanoscale, 2015, 7, 11509-11514.	2.8	40
47	Self-doping Ti1-Nb2+O7 anode material for lithium-ion battery and its electrochemical performance. Journal of Alloys and Compounds, 2017, 728, 534-540.	2.8	40
48	Accelerated aging and degradation mechanism of LiFePO₄/graphite batteries cycled at high discharge rates. RSC Advances, 2018, 8, 25695-25703.	1.7	40
49	Clew-like N-doped multiwalled carbon nanotube aggregates derived from metal-organic complexes for lithium-sulfur batteries. Carbon, 2017, 122, 635-642.	5.4	39
50	Enhancement of low-temperature performance of LiFePO4 electrode by butyl sultone as electrolyte additive. Solid State Ionics, 2014, 254, 27-31.	1.3	37
51	Lithium deposition on graphite anode during long-term cycles and the effect on capacity loss. RSC Advances, 2014, 4, 26335-26341.	1.7	36
52	The effect of boron doping on lithium intercalation performance of boron-doped carbon materials. Materials Chemistry and Physics, 2003, 80, 94-101.	2.0	35
53	Triphenyl phosphite as an electrolyte additive to improve the cyclic stability of lithium-rich layered oxide cathode for lithium-ion batteries. Electrochimica Acta, 2016, 216, 44-50.	2.6	34
54	Lithium Phosphorus Oxynitride Coated Concentration Gradient Li[Ni0.73Co0.12Mn0.15]O2 Cathode Material with Enhanced Electrochemical Properties. Electrochimica Acta, 2016, 192, 340-345.	2.6	33

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55	Electrochemical performance degeneration mechanism of LiCoO₂ with high state of charge during long-term charge/discharge cycling. RSC Advances, 2015, 5, 81235-81242.	1.7	31
56	A Novel One-dimensional Reduced Graphene Oxide/Sulfur Nanoscroll Material and its Application in Lithium Sulfur Batteries. Electrochimica Acta, 2016, 222, 1861-1869.	2.6	31
57	Facile synthesis of binder-free reduced graphene oxide/silicon anode for high-performance lithium ion batteries. Journal of Power Sources, 2016, 312, 216-222.	4.0	31
58	Lithium Cobalt Oxides Functionalized by Conductive Al-doped ZnO Coating as Cathode for High-performance Lithium Ion Batteries. Electrochimica Acta, 2017, 224, 96-104.	2.6	31
59	Understanding the Structural Evolution and Lattice Water Movement for Rhombohedral Nickel Hexacyanoferrate upon Sodium Migration. ACS Applied Materials & Interfaces, 2019, 11, 46705-46713.	4.0	31
60	Effects of carbon on the structure and electrochemical performance of Li2FeSiO4 cathode materials for lithium-ion batteries. RSC Advances, 2012, 2, 6994.	1.7	30
61	Effect of short-time external short circuiting on the capacity fading mechanism during long-term cycling of LiCoO2/mesocarbon microbeads battery. Journal of Power Sources, 2016, 318, 154-162.	4.0	30
62	Improved Rate Performance of Lithium Sulfur Batteries by In-Situ Anchoring of Lithium Iodide in Carbon/Sulfur Cathode. Electrochimica Acta, 2017, 238, 257-262.	2.6	30
63	Lithium Compound Deposition on Mesocarbon Microbead Anode of Lithium Ion Batteries after Long-Term Cycling. ACS Applied Materials & Interfaces, 2014, 6, 12962-12970.	4.0	29
64	Improved high-voltage performance of LiNi 1/3 Co 1/3 Mn 1/3 O 2 cathode with Tris(2,2,2-trifluoroethyl) phosphite as electrolyte additive. Electrochimica Acta, 2017, 243, 72-81.	2.6	29
65	Unravelling the Enhanced Highâ€Temperature Performance of Lithiumâ€Rich Oxide Cathode with Methyl Diphenylphosphinite as Electrolyte Additive. ChemElectroChem, 2018, 5, 1569-1575.	1.7	29
66	Degradation mechanism of over-charged LiCoO2/mesocarbon microbeads battery during shallow depth of discharge cycling. Journal of Power Sources, 2016, 329, 255-261.	4.0	28
67	Role of fluorine surface modification in improving electrochemical cyclability of concentration gradient Li[Ni_{0.73}Co_{0.12}Mn_{0.15}]O₂ cathode material for Li-ion batteries. RSC Advances, 2016, 6, 26307-26316.	1.7	28
68	Pseudocapacitive Li+ intercalation in ZnO/ZnO@C composites enables high-rate lithium-ion storage and stable cyclability. Ceramics International, 2017, 43, 11998-12004.	2.3	28
69	Mixed lithium ion and electron conducting LiAlPO 3.93 F 1.07 -coated LiCoO 2 cathode with improved electrochemical performance. Electrochemistry Communications, 2017, 83, 106-109.	2.3	28
70	Improvement of cycle performance for silicon/carbon composite used as anode for lithium ion batteries. Materials Chemistry and Physics, 2009, 115, 757-760.	2.0	27
71	Hierarchy carbon paper for the gas diffusion layer of proton exchange membrane fuel cells. Journal of Power Sources, 2009, 187, 505-508.	4.0	27
72	Polymeric multilayer-modified manganese dioxide with hollow porous structure as sulfur host for lithium sulfur batteries. Electrochimica Acta, 2018, 259, 440-448.	2.6	27

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73	A Nanostructured Si/SiOC Composite Anode with Volumeâ€Changeâ€Buffering Microstructure for Lithiumâ€Ion Batteries. Chemistry - A European Journal, 2019, 25, 2604-2609.	1.7	27
74	Layer-by-Layer Engineered Silicon-Based Sandwich Nanomat as Flexible Anode for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 39970-39978.	4.0	26
75	Enhancement of the electrochemical performance of silicon/carbon composite material for lithium ion batteries. Ionics, 2011, 17, 87-90.	1.2	25
76	Facile preparation of Li4Ti5O12/AB/MWCNTs composite with high-rate performance for lithium ion battery. Electrochimica Acta, 2013, 94, 294-299.	2.6	25
77	Improved properties of polymer electrolyte by ionic liquid PP1.3TFSI for secondary lithium ion battery. Journal of Solid State Electrochemistry, 2012, 16, 383-389.	1.2	23
78	High-performance carbon-coated LiMnPO4 nanocomposites by facile two-step solid-state synthesis for lithium-ion battery. Journal of Solid State Electrochemistry, 2015, 19, 281-288.	1.2	23
79	Enhanced lithium storage performance of silicon anode via fabricating into sandwich electrode. Electrochimica Acta, 2011, 56, 4403-4407.	2.6	22
80	Improved electrochemical performance of NaAlO2-coated LiCoO2 for lithium-ion batteries. Journal of Solid State Electrochemistry, 2017, 21, 1195-1201.	1.2	21
81	The effects of functional ionic liquid on properties of solid polymer electrolyte. Materials Chemistry and Physics, 2011, 128, 250-255.	2.0	20
82	Surface nitrided and carbon coated TiNb2O7 anode material with excellent performance for lithium-ion batteries. Journal of Alloys and Compounds, 2020, 835, 155241.	2.8	20
83	Sol-gel synthesis of preceramic polyphenylsilsesquioxane aerogels and their application toward monolithic porous SiOC ceramics. Ceramics International, 2018, 44, 14947-14951.	2.3	19
84	Synthesis and electrochemical performance of hierarchical nanocomposite of carbon coated LiCoPO4 crosslinked by graphene. Materials Chemistry and Physics, 2016, 171, 6-10.	2.0	18
85	3D hierarchical Co/CoO/C nanocomposites with mesoporous microsheets grown on nickel foam as cathodes for Li-O2 batteries. Journal of Alloys and Compounds, 2018, 749, 378-384.	2.8	18
86	Rapid Prediction of the Open-Circuit-Voltage of Lithium Ion Batteries Based on an Effective Voltage Relaxation Model. Energies, 2018, 11, 3444.	1.6	18
87	Recovery Strategy and Mechanism of Aged Lithium Ion Batteries after Shallow Depth of Discharge at Elevated Temperature. ACS Applied Materials & Interfaces, 2016, 8, 5234-5242.	4.0	17
88	Improved electrochemical performance of nano-crystalline Li2FeSiO4/C cathode material prepared by the optimization of sintering temperature. Journal of Solid State Electrochemistry, 2013, 17, 1955-1959.	1.2	14
89	Electrochemical investigation of silicon/carbon composite as anode material for lithium ion batteries. Journal of Materials Science, 2008, 43, 3149-3152.	1.7	13
90	Effects of VC-LiBOB binary additives on SEI formation in ionic liquidâ€“organic composite electrolyte. RSC Advances, 2012, 2, 4097.	1.7	13

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91	Interface Modifications by Tris(2,2,2-trifluoroethyl) Borate for Improving the High-Voltage Performance of LiNi_{1/3}Co_{1/3}Mn_{1/3}O₂Cathode. Journal of the Electrochemical Society, 2017, 164, A1924-A1932.	1.3	13
92	Influence of accidental overcharging on the performance and degradation mechanisms of LiCoO2/mesocarbon microbead battery. Journal of Solid State Electrochemistry, 2018, 22, 3743-3750.	1.2	13
93	Electrochemical reaction of the SiMn/C composite for anode in lithium ion batteries. Electrochimica Acta, 2006, 52, 1527-1531.	2.6	12
94	Prediction Model and Principle of End-of-Life Threshold for Lithium Ion Batteries Based on Open Circuit Voltage Drifts. Electrochimica Acta, 2017, 255, 83-91.	2.6	11
95	Unraveling the Relationship between Ti⁴⁺ Doping and Li⁺ Mobility Enhancement in Ti⁴⁺ Doped Li₃V₂(PO₄)₃. ACS Applied Energy Materials, 2020, 3, 715-722.	2.5	11
96	Superior Electrochemical Performance of WNb₂O₈ Nanorods Triggered by Ultraâ€Efficient Li⁺ Diffusion. ChemistrySelect, 2020, 5, 1209-1213.	0.7	11
97	Toward Promising Turnkey Solution for Next-Generation Lithium Ion Batteries: Scale Preparation, Fading Analysis, and Enhanced Performance of Microsized Si/C Composites. ACS Applied Energy Materials, 2018, 1, 6977-6985.	2.5	10
98	Accelerated Aging Analysis on Cycle Life of LiFePO₄/Graphite Batteries Based on Different Rates. ChemElectroChem, 2018, 5, 2301-2309.	1.7	10
99	Oxygen vacancies Nb2O5-: Ultrastable lithium storage anode materials for advanced rechargeable batteries. Applied Surface Science, 2022, 600, 154068.	3.1	10
100	Facile carbon fiber-sewed high areal density electrode for lithium sulfur batteries. Chemical Communications, 2020, 56, 10758-10761.	2.2	9
101	Excellent room-temperature performance of lithium metal polymer battery with enhanced interfacial compatibility. Electrochimica Acta, 2018, 283, 1261-1268.	2.6	7
102	Electrochemical Properties of Natural Graphite Fluorinated by ClF[sub 3] and NF[sub 3] in Propylene Carbonate-Containing Solvent. Journal of the Electrochemical Society, 2008, 155, A405.	1.3	4
103	Hydrothermal Self-Assembly Synthesis of Porous SnO₂/Graphene Nanocomposite as an Anode Material for Lithium Ion Batteries. Journal of Nanoscience and Nanotechnology, 2017, 17, 1877-1883.	0.9	2
104	Electrochemical behaviors in the anode of LiCoO2/mesocarbon microbead battery and their impacts on the capacity degradation. Ionics, 2021, 27, 2353-2365.	1.2	2
105	A multifunctional silicotungstic acid-modified Li-rich manganese-based cathode material with excellent electrochemical properties. Journal of Solid State Electrochemistry, 2019, 23, 101-108.	1.2	1