

Xinqun Cheng

List of Publications by Year in descending order

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105
papers

5,393
citations

66234

42
h-index

91712

69
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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	ZIF-8 with Ferrocene Encapsulated: A Promising Precursor to Single-Atom Fe Embedded Nitrogen-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 Ti ₂ Nb ₁₀ O ₂₉ 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-Nb ₂ O ₅ 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 LiFePO ₄ electrode. Electrochimica Acta, 2013, 87, 466-472.	2.6	137
8	Improved electrochemical performance of micro-sized SiO ₂ -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 TiNb ₂ O ₇ 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} O ₂ oxide coated by Li ₃ PO ₄ 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 SnO ₂ surface coating to enhance the activation of layered Li-Rich Li _{1.2} Mn _{0.54} Ni _{0.13} Co _{0.13} O ₂ 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 LiNi _{0.8} Co _{0.1} Mn _{0.1} O ₂ 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 LiCoO ₂ /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 lithium-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 LiFePO ₄ cathode material from FePO ₄ microspheres with carbon nanotube networks embedded for lithium ion batteries. <i>Journal of Power Sources</i> , 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. <i>Journal of Materials Chemistry A</i> , 2014, 2, 15640.	5.2	75
21	Engineering Molecular Polymerization for Template-Free SiO _x /C Hollow Spheres as Ultrastable Anodes in Lithium-ion Batteries. <i>Advanced Functional Materials</i> , 2021, 31, 2101145.	7.8	74
22	State of health diagnosis model for lithium ion batteries based on real-time impedance and open circuit voltage parameters identification method. <i>Energy</i> , 2018, 144, 647-656.	4.5	69
23	Highly efficient and stable nonplatinum anode catalyst with Au@Pd core-shell nanostructures for methanol electrooxidation. <i>Journal of Catalysis</i> , 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. <i>Journal of Power Sources</i> , 2017, 361, 227-236.	4.0	68
25	Effect of ZnO modification on the performance of LiNi _{0.5} Co _{0.25} Mn _{0.25} O ₂ cathode material. <i>Electrochimica Acta</i> , 2009, 54, 5796-5803.	2.6	66
26	Synthesis and characterization of carbon-coated LiNi _{1/3} Co _{1/3} Mn _{1/3} O ₂ cathode material prepared by polyvinyl alcohol pyrolysis route. <i>Journal of Alloys and Compounds</i> , 2009, 473, 53-59.	2.8	64
27	Improved electrochemical performance and capacity fading mechanism of nano-sized LiMn _{0.9} Fe _{0.1} PO ₄ cathode modified by polyacene coating. <i>Journal of Materials Chemistry A</i> , 2015, 3, 1569-1579.	5.2	64
28	Free-Standing Sandwich-Type Graphene/Nanocellulose/Silicon Laminar Anode for Flexible Rechargeable Lithium Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 29638-29646.	4.0	63
29	Al ₂ O ₃ Coated Concentration-Gradient Li[Ni _{0.73} Co _{0.12} Mn _{0.15}]O ₂ Cathode Material by Freeze Drying for Long-Life Lithium Ion Batteries. <i>Electrochimica Acta</i> , 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. <i>Electrochimica Acta</i> , 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. <i>Journal of Materials Chemistry A</i> , 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. <i>Electrochimica Acta</i> , 2011, 56, 4841-4848.	2.6	53
33	A facile strategy to prepare nano-crystalline Li ₄ Ti ₅ O ₁₂ /C anode material via polyvinyl alcohol as carbon source for high-rate rechargeable Li-ion batteries. <i>Electrochimica Acta</i> , 2013, 93, 173-178.	2.6	53
34	Changes of Degradation Mechanisms of LiFePO ₄ /Graphite Batteries Cycled at Different Ambient Temperatures. <i>Electrochimica Acta</i> , 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-O ₂ batteries. <i>Carbon</i> , 2017, 118, 139-147.	5.4	50
36	Enhancement of high voltage cycling performance and thermal stability of LiNi _{1/3} Co _{1/3} Mn _{1/3} O ₂ cathode by use of boron-based additives. <i>Solid State Ionics</i> , 2014, 263, 146-151.	1.3	47

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37	Unravelling the Interface Layer Formation and Gas Evolution/Suppression on a TiNb_2O_7 Anode for Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 27056-27062.	4.0	47
38	Influence of fluoroethylene carbonate as co-solvent on the high-voltage performance of $\text{LiNi}_{1/3}\text{Co}_{1/3}\text{Mn}_{1/3}\text{O}_2$ cathode for lithium-ion batteries. <i>Electrochimica Acta</i> , 2016, 191, 8-15.	2.6	45
39	Hydrothermal-assisted sol-gel synthesis of $\text{Li}_4\text{Ti}_5\text{O}_{12}/\text{C}$ nano-composite for high-energy lithium-ion batteries. <i>Solid State Ionics</i> , 2013, 244, 52-56.	1.3	44
40	Changing of SEI Film and Electrochemical Properties about MCMB Electrodes during Long-Term Charge/Discharge Cycles. <i>Journal of the Electrochemical Society</i> , 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. <i>Chemistry of Materials</i> , 2017, 29, 2141-2149.	3.2	44
42	Ascorbic acid-assisted solvothermal synthesis of $\text{LiMn}_{0.9}\text{Fe}_{0.1}\text{PO}_4/\text{C}$ nanoplatelets with enhanced electrochemical performance for lithium ion batteries. <i>Journal of Power Sources</i> , 2013, 243, 872-879.	4.0	43
43	Simple annealing process for performance improvement of silicon anode based on polyvinylidene fluoride binder. <i>Journal of Power Sources</i> , 2010, 195, 2069-2073.	4.0	42
44	Effect of Ag additive on the performance of $\text{LiNi}_{1/3}\text{Co}_{1/3}\text{Mn}_{1/3}\text{O}_2$ cathode material for lithium ion battery. <i>Journal of Power Sources</i> , 2009, 189, 2-8.	4.0	41
45	Amorphous carbon-encapsulated Si nanoparticles loading on MCMB with sandwich structure for lithium ion batteries. <i>Electrochimica Acta</i> , 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. <i>Nanoscale</i> , 2015, 7, 11509-11514.	2.8	40
47	Self-doping $\text{Ti}_1\text{-Nb}_2\text{O}_7$ anode material for lithium-ion battery and its electrochemical performance. <i>Journal of Alloys and Compounds</i> , 2017, 728, 534-540.	2.8	40
48	Accelerated aging and degradation mechanism of $\text{LiFePO}_4/\text{graphite}$ batteries cycled at high discharge rates. <i>RSC Advances</i> , 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. <i>Carbon</i> , 2017, 122, 635-642.	5.4	39
50	Enhancement of low-temperature performance of LiFePO_4 electrode by butyl sultone as electrolyte additive. <i>Solid State Ionics</i> , 2014, 254, 27-31.	1.3	37
51	Lithium deposition on graphite anode during long-term cycles and the effect on capacity loss. <i>RSC Advances</i> , 2014, 4, 26335-26341.	1.7	36
52	The effect of boron doping on lithium intercalation performance of boron-doped carbon materials. <i>Materials Chemistry and Physics</i> , 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. <i>Electrochimica Acta</i> , 2016, 216, 44-50.	2.6	34
54	Lithium Phosphorus Oxynitride Coated Concentration Gradient $\text{Li}[\text{Ni}_{0.73}\text{Co}_{0.12}\text{Mn}_{0.15}]\text{O}_2$ Cathode Material with Enhanced Electrochemical Properties. <i>Electrochimica Acta</i> , 2016, 192, 340-345.	2.6	33

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55	Electrochemical performance degeneration mechanism of LiCoO_2 with high state of charge during long-term charge/discharge cycling. <i>RSC Advances</i> , 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. <i>Electrochimica Acta</i> , 2016, 222, 1861-1869.	2.6	31
57	Facile synthesis of binder-free reduced graphene oxide/silicon anode for high-performance lithium ion batteries. <i>Journal of Power Sources</i> , 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. <i>Electrochimica Acta</i> , 2017, 224, 96-104.	2.6	31
59	Understanding the Structural Evolution and Lattice Water Movement for Rhombohedral Nickel Hexacyanoferrate upon Sodium Migration. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 46705-46713.	4.0	31
60	Effects of carbon on the structure and electrochemical performance of $\text{Li}_2\text{FeSiO}_4$ cathode materials for lithium-ion batteries. <i>RSC Advances</i> , 2012, 2, 6994.	1.7	30
61	Effect of short-time external short circuiting on the capacity fading mechanism during long-term cycling of LiCoO_2 /mesocarbon microbeads battery. <i>Journal of Power Sources</i> , 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. <i>Electrochimica Acta</i> , 2017, 238, 257-262.	2.6	30
63	Lithium Compound Deposition on Mesocarbon Microbead Anode of Lithium Ion Batteries after Long-Term Cycling. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 12962-12970.	4.0	29
64	Improved high-voltage performance of $\text{LiNi}_{1/3}\text{Co}_{1/3}\text{Mn}_{1/3}\text{O}_2$ cathode with $\text{Tris}(2,2,2\text{-trifluoroethyl})\text{phosphite}$ as electrolyte additive. <i>Electrochimica Acta</i> , 2017, 243, 72-81.	2.6	29
65	Unravelling the Enhanced High-Temperature Performance of Lithium-Rich Oxide Cathode with Methyl Diphenylphosphinite as Electrolyte Additive. <i>ChemElectroChem</i> , 2018, 5, 1569-1575.	1.7	29
66	Degradation mechanism of over-charged LiCoO_2 /mesocarbon microbeads battery during shallow depth of discharge cycling. <i>Journal of Power Sources</i> , 2016, 329, 255-261.	4.0	28
67	Role of fluorine surface modification in improving electrochemical cyclability of concentration gradient $\text{Li}[\text{Ni}_{0.73}\text{Co}_{0.12}\text{Mn}_{0.15}]\text{O}_2$ cathode material for Li-ion batteries. <i>RSC Advances</i> , 2016, 6, 26307-26316.	1.7	28
68	Pseudocapacitive Li^+ intercalation in $\text{ZnO}/\text{ZnO}@\text{C}$ composites enables high-rate lithium-ion storage and stable cyclability. <i>Ceramics International</i> , 2017, 43, 11998-12004.	2.3	28
69	Mixed lithium ion and electron conducting LiAlPO_4 3.93 F 1.07 -coated LiCoO_2 cathode with improved electrochemical performance. <i>Electrochemistry Communications</i> , 2017, 83, 106-109.	2.3	28
70	Improvement of cycle performance for silicon/carbon composite used as anode for lithium ion batteries. <i>Materials Chemistry and Physics</i> , 2009, 115, 757-760.	2.0	27
71	Hierarchy carbon paper for the gas diffusion layer of proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2009, 187, 505-508.	4.0	27
72	Polymeric multilayer-modified manganese dioxide with hollow porous structure as sulfur host for lithium sulfur batteries. <i>Electrochimica Acta</i> , 2018, 259, 440-448.	2.6	27

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73	A Nanostructured Si/SiOC Composite Anode with Volume Change Buffering Microstructure for Lithium-Ion Batteries. <i>Chemistry - A European Journal</i> , 2019, 25, 2604-2609.	1.7	27
74	Layer-by-Layer Engineered Silicon-Based Sandwich Nanomat as Flexible Anode for Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 39970-39978.	4.0	26
75	Enhancement of the electrochemical performance of silicon/carbon composite material for lithium ion batteries. <i>Ionics</i> , 2011, 17, 87-90.	1.2	25
76	Facile preparation of Li ₄ Ti ₅ O ₁₂ /AB/MWCNTs composite with high-rate performance for lithium ion battery. <i>Electrochimica Acta</i> , 2013, 94, 294-299.	2.6	25
77	Improved properties of polymer electrolyte by ionic liquid PP1.3TFSI for secondary lithium ion battery. <i>Journal of Solid State Electrochemistry</i> , 2012, 16, 383-389.	1.2	23
78	High-performance carbon-coated LiMnPO ₄ nanocomposites by facile two-step solid-state synthesis for lithium-ion battery. <i>Journal of Solid State Electrochemistry</i> , 2015, 19, 281-288.	1.2	23
79	Enhanced lithium storage performance of silicon anode via fabricating into sandwich electrode. <i>Electrochimica Acta</i> , 2011, 56, 4403-4407.	2.6	22
80	Improved electrochemical performance of NaAlO ₂ -coated LiCoO ₂ for lithium-ion batteries. <i>Journal of Solid State Electrochemistry</i> , 2017, 21, 1195-1201.	1.2	21
81	The effects of functional ionic liquid on properties of solid polymer electrolyte. <i>Materials Chemistry and Physics</i> , 2011, 128, 250-255.	2.0	20
82	Surface nitrided and carbon coated TiNb ₂ O ₇ anode material with excellent performance for lithium-ion batteries. <i>Journal of Alloys and Compounds</i> , 2020, 835, 155241.	2.8	20
83	Sol-gel synthesis of preceramic polyphenylsilsesquioxane aerogels and their application toward monolithic porous SiOC ceramics. <i>Ceramics International</i> , 2018, 44, 14947-14951.	2.3	19
84	Synthesis and electrochemical performance of hierarchical nanocomposite of carbon coated LiCoPO ₄ crosslinked by graphene. <i>Materials Chemistry and Physics</i> , 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-O ₂ batteries. <i>Journal of Alloys and Compounds</i> , 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. <i>Energies</i> , 2018, 11, 3444.	1.6	18
87	Recovery Strategy and Mechanism of Aged Lithium Ion Batteries after Shallow Depth of Discharge at Elevated Temperature. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 5234-5242.	4.0	17
88	Improved electrochemical performance of nano-crystalline Li ₂ FeSiO ₄ /C cathode material prepared by the optimization of sintering temperature. <i>Journal of Solid State Electrochemistry</i> , 2013, 17, 1955-1959.	1.2	14
89	Electrochemical investigation of silicon/carbon composite as anode material for lithium ion batteries. <i>Journal of Materials Science</i> , 2008, 43, 3149-3152.	1.7	13
90	Effects of VC-LiBOB binary additives on SEI formation in ionic liquid-organic composite electrolyte. <i>RSC Advances</i> , 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 $\text{LiNi}_{1/3}\text{Co}_{1/3}\text{Mn}_{1/3}\text{O}_2$ Cathode. <i>Journal of the Electrochemical Society</i> , 2017, 164, A1924-A1932.	1.3	13
92	Influence of accidental overcharging on the performance and degradation mechanisms of LiCoO_2 /mesocarbon microbead battery. <i>Journal of Solid State Electrochemistry</i> , 2018, 22, 3743-3750.	1.2	13
93	Electrochemical reaction of the SiMn/C composite for anode in lithium ion batteries. <i>Electrochimica Acta</i> , 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. <i>Electrochimica Acta</i> , 2017, 255, 83-91.	2.6	11
95	Unraveling the Relationship between Ti^{4+} Doping and Li^{+} Mobility Enhancement in Ti^{4+} Doped $\text{Li}_3\text{V}_2(\text{PO}_4)_3$. <i>ACS Applied Energy Materials</i> , 2020, 3, 715-722.	2.5	11
96	Superior Electrochemical Performance of WNb_2O_8 Nanorods Triggered by Ultra-efficient Li^{+} Diffusion. <i>ChemistrySelect</i> , 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. <i>ACS Applied Energy Materials</i> , 2018, 1, 6977-6985.	2.5	10
98	Accelerated Aging Analysis on Cycle Life of LiFePO_4 /Graphite Batteries Based on Different Rates. <i>ChemElectroChem</i> , 2018, 5, 2301-2309.	1.7	10
99	Oxygen vacancies Nb_2O_5 :- Ultrastable lithium storage anode materials for advanced rechargeable batteries. <i>Applied Surface Science</i> , 2022, 600, 154068.	3.1	10
100	Facile carbon fiber-sewed high areal density electrode for lithium sulfur batteries. <i>Chemical Communications</i> , 2020, 56, 10758-10761.	2.2	9
101	Excellent room-temperature performance of lithium metal polymer battery with enhanced interfacial compatibility. <i>Electrochimica Acta</i> , 2018, 283, 1261-1268.	2.6	7
102	Electrochemical Properties of Natural Graphite Fluorinated by ClF_3 and NF_3 in Propylene Carbonate-Containing Solvent. <i>Journal of the Electrochemical Society</i> , 2008, 155, A405.	1.3	4
103	Hydrothermal Self-Assembly Synthesis of Porous SnO_2 /Graphene Nanocomposite as an Anode Material for Lithium Ion Batteries. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 1877-1883.	0.9	2
104	Electrochemical behaviors in the anode of LiCoO_2 /mesocarbon microbead battery and their impacts on the capacity degradation. <i>Ionics</i> , 2021, 27, 2353-2365.	1.2	2
105	A multifunctional silicotungstic acid-modified Li-rich manganese-based cathode material with excellent electrochemical properties. <i>Journal of Solid State Electrochemistry</i> , 2019, 23, 101-108.	1.2	1