Xinqun Cheng

List of Publications by Citations

104 papers	4,123 citations	36 h-index	59 g-index
106 ext. papers	4,724 ext. citations	6.9 avg, IF	5.42 L-index

#	Paper	IF	Citations
104	Superior performance of ordered macroporous TiNb2O7 anodes for lithium ion batteries: Understanding from the structural and pseudocapacitive insights on achieving high rate capability. *Nano Energy*, **2017**, 34, 15-25	17.1	264
103	Understanding undesirable anode lithium plating issues in lithium-ion batteries. *RSC Advances*, **2016**, 6, 88683-88700	3.7	204
102	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	11	148
101	Nanosized core/shell silicon@carbon anode material for lithium ion batteries with polyvinylidene fluoride as carbon source. *Journal of Materials Chemistry*, **2010**, 20, 3216		146
100	Pseudocapacitive Li+ intercalation in porous Ti2Nb10O29 nanospheres enables ultra-fast lithium storage. *Energy Storage Materials*, **2018**, 11, 57-66	19.4	119
99	High-rate capability of three-dimensionally ordered macroporous T-Nb2O5 through Li+ intercalation pseudocapacitance. *Journal of Power Sources*, **2017**, 361, 80-86	8.9	106
98	Fluoroethylene carbonate as electrolyte additive to improve low temperature performance of LiFePO4 electrode. *Electrochimica Acta*, **2013**, 87, 466-472	6.7	100
97	Facile synthesis of nanostructured TiNb2O7 anode materials with superior performance for high-rate lithium ion batteries. *Chemical Communications*, **2015**, 51, 17293-6	5.8	96
96	Lithium-rich Li1.2Ni0.13Co0.13Mn0.54O2 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	13	92
95	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	8.9	91
94	Enabling reliable lithium metal batteries by a bifunctional anionic electrolyte additive. *Energy Storage Materials*, **2018**, 11, 197-204	19.4	82
93	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	8.9	75
92	Capacity fading mechanism during long-term cycling of over-discharged LiCoO2/mesocarbon microbeads battery. *Journal of Power Sources*, **2015**, 293, 1006-1015	8.9	67
91	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	8.9	67
90	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	6.7	67
89	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	5.7	67
88	A two-dimensional nitrogen-rich carbon/silicon composite as high performance anode material for lithium ion batteries. *Chemical Engineering Journal*, **2018**, 341, 37-46	14.7	66

87	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	13	65
86	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	13	65
85	Highly efficient and stable nonplatinum anode catalyst with Au@Pd core–shell nanostructures for methanol electrooxidation. *Journal of Catalysis*, **2012**, 295, 217-222	7.3	63
84	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	8.9	60
83	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	5.7	56
82	Improved electrochemical performance and capacity fading mechanism of nano-sized LiMn0.9Fe0.1PO4 cathode modified by polyacene coating. *Journal of Materials Chemistry A*, **2015**, 3, 1569-1579	13	55
81	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	6.7	54
80	Effect of ZnO modification on the performance of LiNi0.5Co0.25Mn0.25O2 cathode material. *Electrochimica Acta*, **2009**, 54, 5796-5803	6.7	53
79	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	6.7	50
78	Free-Standing Sandwich-Type Graphene/Nanocellulose/Silicon Laminar Anode for Flexible Rechargeable Lithium Ion Batteries. *ACS Applied Materials & Interfaces*, **2018**, 10, 29638-29646	9.5	48
77	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	6.7	47
76	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	8.9	47
75	The effects of LiBOB additive for stable SEI formation of PP13TFSI-organic mixed electrolyte in lithium ion batteries. *Electrochimica Acta*, **2011**, 56, 4841-4848	6.7	44
74	State of health diagnosis model for lithium ion batteries based on real-time impedance and open circuit voltage parameters identification method. *Energy*, **2018**, 144, 647-656	7.9	44
73	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	3.3	40
72	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	6.7	39
71	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	13	38
70	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	10.4	37

69	Hydrothermal-assisted sol-gel synthesis of Li4Ti5O12/C nano-composite for high-energy lithium-ion batteries. *Solid State Ionics*, **2013**, 244, 52-56	3.3	37
68	Changes of Degradation Mechanisms of LiFePO4/Graphite Batteries Cycled at Different Ambient Temperatures. *Electrochimica Acta*, **2017**, 237, 248-258	6.7	36
67	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	8.9	36
66	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	3.9	36
65	Simple annealing process for performance improvement of silicon anode based on polyvinylidene fluoride binder. *Journal of Power Sources*, **2010**, 195, 2069-2073	8.9	36
64	Unravelling the Interface Layer Formation and Gas Evolution/Suppression on a TiNbO Anode for Lithium-Ion Batteries. *ACS Applied Materials & Interfaces*, **2018**, 10, 27056-27062	9.5	35
63	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	8.9	35
62	A novel nanoporous Fe-doped lithium manganese phosphate material with superior long-term cycling stability for lithium-ion batteries. *Nanoscale*, **2015**, 7, 11509-14	7.7	34
61	Clew-like N-doped multiwalled carbon nanotube aggregates derived from metal-organic complexes for lithium-sulfur batteries. *Carbon*, **2017**, 122, 635-642	10.4	33
60	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	9.6	31
59	Amorphous carbon-encapsulated Si nanoparticles loading on MCMB with sandwich structure for lithium ion batteries. *Electrochimica Acta*, **2019**, 306, 590-598	6.7	31
58	Enhancement of low-temperature performance of LiFePO4 electrode by butyl sultone as electrolyte additive. *Solid State Ionics*, **2014**, 254, 27-31	3.3	31
57	The effect of boron doping on lithium intercalation performance of boron-doped carbon materials. *Materials Chemistry and Physics*, **2003**, 80, 94-101	4.4	30
56	Electrochemical performance degeneration mechanism of LiCoO2 with high state of charge during long-term charge/discharge cycling. *RSC Advances*, **2015**, 5, 81235-81242	3.7	29
55	Lithium Phosphorus Oxynitride Coated Concentration Gradient Li[Ni0.73Co0.12Mn0.15]O2 Cathode Material with Enhanced Electrochemical Properties. *Electrochimica Acta*, **2016**, 192, 340-345	6.7	29
54	Lithium deposition on graphite anode during long-term cycles and the effect on capacity loss. *RSC Advances*, **2014**, 4, 26335-26341	3.7	29
53	A Novel One-dimensional Reduced Graphene Oxide/Sulfur Nanoscroll Material and its Application in Lithium Sulfur Batteries. *Electrochimica Acta*, **2016**, 222, 1861-1869	6.7	29
52	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	6.7	27

51	Self-doping Ti1-xNb2+xO7 anode material for lithium-ion battery and its electrochemical performance. *Journal of Alloys and Compounds*, **2017**, 728, 534-540	5.7	27
50	Effects of carbon on the structure and electrochemical performance of Li2FeSiO4 cathode materials for lithium-ion batteries. *RSC Advances*, **2012**, 2, 6994	3.7	27
49	Unravelling the Enhanced High-Temperature Performance of Lithium-Rich Oxide Cathode with Methyl Diphenylphosphinite as Electrolyte Additive. *ChemElectroChem*, **2018**, 5, 1569-1575	4.3	26
48	Lithium compound deposition on mesocarbon microbead anode of lithium ion batteries after long-term cycling. *ACS Applied Materials & Interfaces*, **2014**, 6, 12962-70	9.5	26
47	Facile synthesis of binder-free reduced graphene oxide/silicon anode for high-performance lithium ion batteries. *Journal of Power Sources*, **2016**, 312, 216-222	8.9	25
46	Lithium Cobalt Oxides Functionalized by Conductive Al-doped ZnO Coating as Cathode for High-performance Lithium Ion Batteries. *Electrochimica Acta*, **2017**, 224, 96-104	6.7	24
45	Role of fluorine surface modification in improving electrochemical cyclability of concentration gradient Li[Ni0.73Co0.12Mn0.15]O2 cathode material for Li-ion batteries. *RSC Advances*, **2016**, 6, 26307-26316	3.7	24
44	Polymeric multilayer-modified manganese dioxide with hollow porous structure as sulfur host for lithium sulfur batteries. *Electrochimica Acta*, **2018**, 259, 440-448	6.7	23
43	Improvement of cycle performance for silicon/carbon composite used as anode for lithium ion batteries. *Materials Chemistry and Physics*, **2009**, 115, 757-760	4.4	23
42	Improved high-voltage performance of LiNi1/3Co1/3Mn1/3O2 cathode with Tris(2,2,2-trifluoroethyl) phosphite as electrolyte additive. *Electrochimica Acta*, **2017**, 243, 72-81	6.7	22
41	Enhancement of the electrochemical performance of silicon/carbon composite material for lithium ion batteries. *Ionics*, **2011**, 17, 87-90	2.7	22
40	Hierarchy carbon paper for the gas diffusion layer of proton exchange membrane fuel cells. *Journal of Power Sources*, **2009**, 187, 505-508	8.9	22
39	Accelerated aging and degradation mechanism of LiFePO/graphite batteries cycled at high discharge rates.. *RSC Advances*, **2018**, 8, 25695-25703	3.7	21
38	Facile preparation of Li4Ti5O12/AB/MWCNTs composite with high-rate performance for lithium ion battery. *Electrochimica Acta*, **2013**, 94, 294-299	6.7	21
37	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	5.1	21
36	Pseudocapacitive Li+ intercalation in ZnO/ZnO@C composites enables high-rate lithium-ion storage and stable cyclability. *Ceramics International*, **2017**, 43, 11998-12004	5.1	20
35	Improved properties of polymer electrolyte by ionic liquid PP1.3TFSI for secondary lithium ion battery. *Journal of Solid State Electrochemistry*, **2012**, 16, 383-389	2.6	20
34	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	8.9	20

33	Improved Rate Performance of Lithium Sulfur Batteries by In-Situ Anchoring of Lithium Iodide in Carbon/Sulfur Cathode. *Electrochimica Acta*, **2017**, 238, 257-262	6.7	19
32	The effects of functional ionic liquid on properties of solid polymer electrolyte. *Materials Chemistry and Physics*, **2011**, 128, 250-255	4.4	19
31	Improved electrochemical performance of NaAlO2-coated LiCoO2 for lithium-ion batteries. *Journal of Solid State Electrochemistry*, **2017**, 21, 1195-1201	2.6	18
30	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	2.6	18
29	Engineering Molecular Polymerization for Template-Free SiOx/C Hollow Spheres as Ultrastable Anodes in Lithium-Ion Batteries. *Advanced Functional Materials*, **2021**, 31, 2101145	15.6	18
28	Degradation mechanism of over-charged LiCoO2/mesocarbon microbeads battery during shallow depth of discharge cycling. *Journal of Power Sources*, **2016**, 329, 255-261	8.9	17
27	Synthesis and electrochemical performance of hierarchical nanocomposite of carbon coated LiCoPO4 crosslinked by graphene. *Materials Chemistry and Physics*, **2016**, 171, 6-10	4.4	17
26	Layer-by-Layer Engineered Silicon-Based Sandwich Nanomat as Flexible Anode for Lithium-Ion Batteries. *ACS Applied Materials & Interfaces*, **2019**, 11, 39970-39978	9.5	17
25	Enhanced lithium storage performance of silicon anode via fabricating into sandwich electrode. *Electrochimica Acta*, **2011**, 56, 4403-4407	6.7	17
24	Understanding the Structural Evolution and Lattice Water Movement for Rhombohedral Nickel Hexacyanoferrate upon Sodium Migration. *ACS Applied Materials & Interfaces*, **2019**, 11, 46705-46713	9.5	17
23	A Nanostructured Si/SiOC Composite Anode with Volume-Change-Buffering Microstructure for Lithium-Ion Batteries. *Chemistry - A European Journal*, **2019**, 25, 2604-2609	4.8	16
22	Recovery Strategy and Mechanism of Aged Lithium Ion Batteries after Shallow Depth of Discharge at Elevated Temperature. *ACS Applied Materials & Interfaces*, **2016**, 8, 5234-42	9.5	14
21	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	2.6	13
20	Electrochemical investigation of silicon/carbon composite as anode material for lithium ion batteries. *Journal of Materials Science*, **2008**, 43, 3149-3152	4.3	13
19	Effects of VC-LiBOB binary additives on SEI formation in ionic liquid–organic composite electrolyte. *RSC Advances*, **2012**, 2, 4097	3.7	12
18	Electrochemical reaction of the SiMn/C composite for anode in lithium ion batteries. *Electrochimica Acta*, **2006**, 52, 1527-1531	6.7	12
17	Sol-gel synthesis of preceramic polyphenylsilsesquioxane aerogels and their application toward monolithic porous SiOC ceramics. *Ceramics International*, **2018**, 44, 14947-14951	5.1	12
16	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	5.7	11

15	Surface nitrided and carbon coated TiNb2O7 anode material with excellent performance for lithium-ion batteries. *Journal of Alloys and Compounds*, **2020**, 835, 155241	5.7	10
14	Interface Modifications by Tris(2,2,2-trifluoroethyl) Borate for Improving the High-Voltage Performance of LiNi1/3Co1/3Mn1/3O2Cathode. *Journal of the Electrochemical Society*, **2017**, 164, A1924-A1932	3.9	9
13	Rapid Prediction of the Open-Circuit-Voltage of Lithium Ion Batteries Based on an Effective Voltage Relaxation Model. *Energies*, **2018**, 11, 3444	3.1	9
12	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	6.7	7
11	Excellent room-temperature performance of lithium metal polymer battery with enhanced interfacial compatibility. *Electrochimica Acta*, **2018**, 283, 1261-1268	6.7	6
10	Unraveling the Relationship between Ti4+ Doping and Li+ Mobility Enhancement in Ti4+ Doped Li3V2(PO4)3. *ACS Applied Energy Materials*, **2020**, 3, 715-722	6.1	6
9	Facile carbon fiber-sewed high areal density electrode for lithium sulfur batteries. *Chemical Communications*, **2020**, 56, 10758-10761	5.8	6
8	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	6.1	6
7	Accelerated Aging Analysis on Cycle Life of LiFePO4/Graphite Batteries Based on Different Rates. *ChemElectroChem*, **2018**, 5, 2301-2309	4.3	6
6	Superior Electrochemical Performance of WNb2O8 Nanorods Triggered by Ultra-Efficient Li+ Diffusion. *ChemistrySelect*, **2020**, 5, 1209-1213	1.8	5
5	Influence of accidental overcharging on the performance and degradation mechanisms of LiCoO2/mesocarbon microbead battery. *Journal of Solid State Electrochemistry*, **2018**, 22, 3743-3750	2.6	5
4	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	3.9	4
3	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	1.3	2
2	Electrochemical behaviors in the anode of LiCoO2/mesocarbon microbead battery and their impacts on the capacity degradation. *Ionics*, **2021**, 27, 2353-2365	2.7	1
1	A multifunctional silicotungstic acid-modified Li-rich manganese-based cathode material with excellent electrochemical properties. *Journal of Solid State Electrochemistry*, **2019**, 23, 101-108	2.6	1