Chunmei Ban

List of Publications by Year
in descending order

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71 papers	4,056 citations	159585 30 h-index	144013 57 g-index
72 all docs	72 docs citations	72 times ranked	6189 citing authors

#	Article	IF	Citations
1	Nanostructured Fe₃O₄/SWNT Electrode: Binderâ€Free and Highâ€Rate Liâ€Ion Anode. Advanced Materials, 2010, 22, E145-9.	21.0	556
2	An artificial interphase enables reversible magnesium chemistry in carbonate electrolytes. Nature Chemistry, 2018, 10, 532-539.	13.6	347
3	Challenges for and Pathways toward Li-Metal-Based All-Solid-State Batteries. ACS Energy Letters, 0, , 1399-1404.	17.4	228
4	Unexpected Improved Performance of ALD Coated LiCoO₂/Graphite Liâ€Ion Batteries. Advanced Energy Materials, 2013, 3, 213-219.	19.5	206
5	Effect of Al₂O₃ Coating on Stabilizing LiNi_{0.4}Mn_{0.4}Co_{0.2}O₂ Cathodes. Chemistry of Materials, 2015, 27, 6146-6154.	6.7	185
6	Operando X-ray photoelectron spectroscopy of solid electrolyte interphase formation and evolution in Li2S-P2S5 solid-state electrolytes. Nature Communications, 2018, 9, 2490.	12.8	170
7	Reversible Highâ€Capacity Si Nanocomposite Anodes for Lithiumâ€Ion Batteries Enabled by Molecular Layer Deposition. Advanced Materials, 2014, 26, 1596-1601.	21.0	169
8	Phase evolution for conversion reaction electrodes in lithium-ion batteries. Nature Communications, 2014, 5, 3358.	12.8	163
9	Conformal Coatings of Cyclizedâ€PAN for Mechanically Resilient Si nanoâ€Composite Anodes. Advanced Energy Materials, 2013, 3, 697-702.	19.5	134
10	Electrospun nano-vanadium pentoxide cathode. Electrochemistry Communications, 2009, 11, 522-525.	4.7	118
11	Surface-Coating Regulated Lithiation Kinetics and Degradation in Silicon Nanowires for Lithium Ion Battery. ACS Nano, 2015, 9, 5559-5566.	14.6	118
12	In Situ Transmission Electron Microscopy Probing of Native Oxide and Artificial Layers on Silicon Nanoparticles for Lithium Ion Batteries. ACS Nano, 2014, 8, 11816-11823.	14.6	99
13	Effect of interface modifications on voltage fade in 0.5Li2MnO3Â·0.5LiNi0.375Mn0.375Co0.25O2 cathode materials. Journal of Power Sources, 2014, 249, 509-514.	7.8	89
14	Strategies to Enable Reversible Magnesium Electrochemistry: From Electrolytes to Artificial Solidâ€“Electrolyte Interphases. Angewandte Chemie - International Edition, 2021, 60, 11036-11047.	13.8	81
15	Atomic layer deposition of amorphous TiO₂on graphene as an anode for Li-ion batteries. Nanotechnology, 2013, 24, 424002.	2.6	76
16	Extremely Durable Highâ€Rate Capability of a LiNi_{0.4}Mn_{0.4}Co_{0.2}O₂ Cathode Enabled with Singleâ€Walled Carbon Nanotubes. Advanced Energy Materials, 2011, 1, 58-62.	19.5	74
17	Spatially Resolving Lithiation in Siliconâ€“Graphite Composite Electrodes via in Situ High-Energy X-ray Diffraction Computed Tomography. Nano Letters, 2019, 19, 3811-3820.	9.1	73
18	A Novel Codoping Approach for Enhancing the Performance of LiFePO₄ Cathodes. Advanced Energy Materials, 2012, 2, 1028-1032.	19.5	72

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19	Interfacially Induced Cascading Failure in Graphiteâ€Silicon Composite Anodes. Advanced Science, 2019, 6, 1801007.	11.2	66
20	Direct synthesis of thermochromic VO2 through hydrothermal reaction. Journal of Solid State Chemistry, 2014, 212, 237-241.	2.9	62
21	Molecular Layer Deposition for Surface Modification of Lithiumâ€Ion Battery Electrodes. Advanced Materials Interfaces, 2016, 3, 1600762.	3.7	59
22	Lithiation of silica through partial reduction. Applied Physics Letters, 2012, 100, .	3.3	57
23	Three-dimensional electronic resistivity mapping of solid electrolyte interphase on Si anode materials. Nano Energy, 2019, 55, 477-485.	16.0	56
24	Material/element-dependent fluorescence-yield modes on soft X-ray absorption spectroscopy of cathode materials for Li-ion batteries. AIP Advances, 2016, 6, .	1.3	48
25	Temperature-Dependent Solubility of Solid Electrolyte Interphase on Silicon Electrodes. ACS Energy Letters, 2019, 4, 2770-2775.	17.4	45
26	Nonpassivated Silicon Anode Surface. ACS Applied Materials & Interfaces, 2020, 12, 26593-26600.	8.0	45
27	Towards understanding the rate capability of layered transition metal oxides LiNiyMnyCo1â^'2yO2. Journal of Power Sources, 2014, 268, 106-112.	7.8	41
28	Facile Synthesis of Lithium Sulfide Nanocrystals for Use in Advanced Rechargeable Batteries. ACS Applied Materials & Interfaces, 2015, 7, 28444-28451.	8.0	39
29	Structure and Reactivity of Alucone-Coated Films on Si and Li_xSi_y Surfaces. ACS Applied Materials & Interfaces, 2015, 7, 11948-11955.	8.0	39
30	Surface SiO₂ Thickness Controls Uniform-to-Localized Transition in Lithiation of Silicon Anodes for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 27017-27028.	8.0	37
31	First-Principles Study of Lithium Borocarbide as a Cathode Material for Rechargeable Li ion Batteries. Journal of Physical Chemistry Letters, 2011, 2, 1129-1132.	4.6	36
32	Nanoscale single-crystal vanadium oxides with layered structure by electrospinning and hydrothermal methods. Solid State Ionics, 2008, 179, 1721-1724.	2.7	30
33	Cross-linked aluminum dioxybenzene coating for stabilization of silicon electrodes. Nano Energy, 2016, 22, 202-210.	16.0	30
34	In Situ Engineering of the Electrodeâ€“Electrolyte Interface for Stabilized Overlithiated Cathodes. Advanced Materials, 2017, 29, 1604549.	21.0	26
35	Atomic layer deposition in porous electrodes: A pore-scale modeling study. Chemical Engineering Journal, 2019, 378, 122099.	12.7	26
36	Towards high rate Li metal anodes: enhanced performance at high current density in a superconcentrated ionic liquid. Journal of Materials Chemistry A, 2020, 8, 3574-3579.	10.3	25

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37	Synchronized electrospinning and electrospraying technique for manufacturing of all-solid-state lithium-ion batteries. Journal of Power Sources, 2019, 431, 17-24.	7.8	23
38	High Current Cycling in a Superconcentrated Ionic Liquid Electrolyte to Promote Uniform Li Morphology and a Uniform LiF-Rich Solid Electrolyte Interphase. ACS Applied Materials & Interfaces, 2020, 12, 42236-42247.	8.0	23
39	Fast Determination of Lithium Content in Spent Cathodes for Direct Battery Recycling. Advanced Sustainable Systems, 2020, 4, 2000073.	5.3	23
40	HWCVD MoO3 nanoparticles and a-Si for next generation Li-ion anodes. Thin Solid Films, 2011, 519, 4495-4497.	1.8	22
41	Surface Modification of Silicon Anodes for Durable and Highï£¿Energy Lithiumâ€Ion Batteries. Israel Journal of Chemistry, 2015, 55, 558-569.	2.3	21
42	Spatial atomic layer deposition for coating flexible porous Li-ion battery electrodes. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, .	2.1	20
43	Spatial Molecular Layer Deposition of Ultrathin Polyamide To Stabilize Silicon Anodes in Lithium-Ion Batteries. ACS Applied Energy Materials, 2019, 2, 4135-4143.	5.1	20
44	P-type doping of lithium peroxide with carbon sheets. Applied Physics Letters, 2012, 101, .	3.3	19
45	Evolution of solid electrolyte interphase and active material in the silicon wafer model system. Journal of Power Sources, 2021, 482, 228946.	7.8	19
46	Charge-driven structural transformation and valence versatility of boron sheets in magnesium borides. Physical Review B, 2011, 83, .	3.2	18
47	Systematic Investigation of the Alucone-Coating Enhancement on Silicon Anodes. ACS Applied Materials & Interfaces, 2017, 9, 40143-40150.	8.0	18
48	Origin of Bonding between the SWCNT and the Fe₃O₄(001) Surface and the Enhanced Electrical Conductivity. Journal of Physical Chemistry Letters, 2011, 2, 2853-2858.	4.6	17
49	Mitigating irreversible capacity losses from carbon agents via surface modification. Journal of Power Sources, 2015, 275, 605-611.	7.8	14
50	Electrochemically induced fractures in crystalline silicon anodes. Journal of Power Sources, 2019, 425, 44-49.	7.8	14
51	All-solid-state disordered LiTiS2pseudocapacitor. Journal of Materials Chemistry A, 2017, 5, 15661-15668.	10.3	13
52	Enabling Magnesium Anodes by Tuning the Electrode/Electrolyte Interfacial Structure. ACS Applied Materials & Interfaces, 2021, 13, 52461-52468.	8.0	13
53	Lithium Substituted Poly(acrylic acid) as a Mechanically Robust Binder for Low-Cost Silicon Microparticle Electrodes. ACS Applied Energy Materials, 2020, 3, 10940-10949.	5.1	10
54	Strategies to Enable Reversible Magnesium Electrochemistry: From Electrolytes to Artificial Solidâ€“Electrolyte Interphases. Angewandte Chemie, 2021, 133, 11136-11147.	2.0	10

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55	Mitigation of rapid capacity decay in silicon- LiNi0.6Mn0.2Co0.2O2 full batteries. Energy Storage Materials, 2022, 49, 111-121.	18.0	8
56	Improved Electrochemical Performance of Carbon-Coated LiFeBO3 Nanoparticles for Lithium-Ion Batteries. Journal of Nanoscience and Nanotechnology, 2015, 15, 7186-7190.	0.9	4
57	Microstructure Study on Initial Lithiation/Delithiation Cycle of Crystalline Silicon Wafer. Microscopy and Microanalysis, 2019, 25, 2098-2099.	0.4	1
58	A Proposed General Solution for Li Dendrite Penetration into Solid Electrolytes. ECS Meeting Abstracts, 2020, MA2020-02, 876-876.	0.0	1
59	High-Capacity and High-Rate Anodes for Li-Ion Batteries. ECS Meeting Abstracts, 2010, , .	0.0	0
60	Surface Coating Effect on Si Nanowires Anodes for Lithium Ion Batteries. Microscopy and Microanalysis, 2015, 21, 321-322.	0.4	0
61	Microstructure Study on Initial Lithiation/Delithiation Cycle of Crystalline Silicon Waferâ€"ADDENDUM. Microscopy and Microanalysis, 2020, 26, 183-183.	0.4	0
62	Cold Plasma Process for Lithium-Ion Electrode Manufacturing. ECS Meeting Abstracts, 2021, MA2021-01, 184-184.	0.0	0
63	Failure Mechanism for Silicon-NMC Batteries. ECS Meeting Abstracts, 2021, MA2021-01, 119-119.	0.0	0
64	A Simplified Model to Track Si Degradation in Various Systems. ECS Meeting Abstracts, 2021, MA2021-01, 126-126.	0.0	0
65	Reimagining Li-Ion Electrode Fabrication Via Cold Plasma Deposition. ECS Meeting Abstracts, 2021, MA2021-01, 176-176.	0.0	0
66	Surface Modification of Silicon Anodes for Durable and High-Energy Lithium-Ion Batteries. ECS Meeting Abstracts, 2016, , .	0.0	0
67	(Invited) Stability and Evolution of Solid Electrolyte Interphase on Silicon Anodes. ECS Meeting Abstracts, 2020, MA2020-01, 406-406.	0.0	0
68	(Invited) Fast Determination of Lithium Content and Failure Mechanism for Aged Lithium-ion Battery Electrodes. ECS Meeting Abstracts, 2021, MA2021-02, 1800-1800.	0.0	0
69	(Invited) Fast Determination of Lithium Content and Failure Mechanism for NMC Cathodes. ECS Meeting Abstracts, 2020, MA2020-02, 9-9.	0.0	0
70	(Keynote) A Proposed Solution to Li Dendrite Penetration Into Solid Electrolytes. ECS Meeting Abstracts, 2021, MA2021-02, 730-730.	0.0	0
71	Plasma Enabled Lithophilic Host for Lithium Anodes. ECS Meeting Abstracts, 2022, MA2022-01, 407-407.	0.0	0