

# 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	Mitigation of rapid capacity decay in silicon- LiNi <sub>0.6</sub> Mn <sub>0.2</sub> Co <sub>0.2</sub> O <sub>2</sub> full batteries. Energy Storage Materials, 2022, 49, 111-121.	18.0	8
2	Plasma Enabled Lithophilic Host for Lithium Anodes. ECS Meeting Abstracts, 2022, MA2022-01, 407-407.	0.0	0
3	Strategies to Enable Reversible Magnesium Electrochemistry: From Electrolytes to Artificial Solidâ€”Electrolyte Interphases. Angewandte Chemie, 2021, 133, 11136-11147.	2.0	10
4	Strategies to Enable Reversible Magnesium Electrochemistry: From Electrolytes to Artificial Solidâ€”Electrolyte Interphases. Angewandte Chemie - International Edition, 2021, 60, 11036-11047.	13.8	81
5	Evolution of solid electrolyte interphase and active material in the silicon wafer model system. Journal of Power Sources, 2021, 482, 228946.	7.8	19
6	Cold Plasma Process for Lithium-Ion Electrode Manufacturing. ECS Meeting Abstracts, 2021, MA2021-01, 184-184.	0.0	0
7	Failure Mechanism for Silicon-NMC Batteries. ECS Meeting Abstracts, 2021, MA2021-01, 119-119.	0.0	0
8	A Simplified Model to Track Si Degradation in Various Systems. ECS Meeting Abstracts, 2021, MA2021-01, 126-126.	0.0	0
9	Reimagining Li-Ion Electrode Fabrication Via Cold Plasma Deposition. ECS Meeting Abstracts, 2021, MA2021-01, 176-176.	0.0	0
10	Enabling Magnesium Anodes by Tuning the Electrode/Electrolyte Interfacial Structure. ACS Applied Materials & Interfaces, 2021, 13, 52461-52468.	8.0	13
11	(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
12	(Keynote) A Proposed Solution to Li Dendrite Penetration Into Solid Electrolytes. ECS Meeting Abstracts, 2021, MA2021-02, 730-730.	0.0	0
13	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
14	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
15	Microstructure Study on Initial Lithiation/Delithiation Cycle of Crystalline Silicon Waferâ€”ADDENDUM. Microscopy and Microanalysis, 2020, 26, 183-183.	0.4	0
16	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
17	Fast Determination of Lithium Content in Spent Cathodes for Direct Battery Recycling. Advanced Sustainable Systems, 2020, 4, 2000073.	5.3	23
18	Surface SiO <sub>2</sub> 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

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19	Nonpassivated Silicon Anode Surface. ACS Applied Materials & Interfaces, 2020, 12, 26593-26600.	8.0	45
20	(Invited) Stability and Evolution of Solid Electrolyte Interphase on Silicon Anodes. ECS Meeting Abstracts, 2020, MA2020-01, 406-406.	0.0	0
21	A Proposed General Solution for Li Dendrite Penetration into Solid Electrolytes. ECS Meeting Abstracts, 2020, MA2020-02, 876-876.	0.0	1
22	(Invited) Fast Determination of Lithium Content and Failure Mechanism for NMC Cathodes. ECS Meeting Abstracts, 2020, MA2020-02, 9-9.	0.0	0
23	Atomic layer deposition in porous electrodes: A pore-scale modeling study. Chemical Engineering Journal, 2019, 378, 122099.	12.7	26
24	Temperature-Dependent Solubility of Solid Electrolyte Interphase on Silicon Electrodes. ACS Energy Letters, 2019, 4, 2770-2775.	17.4	45
25	Microstructure Study on Initial Lithiation/Delithiation Cycle of Crystalline Silicon Wafer. Microscopy and Microanalysis, 2019, 25, 2098-2099.	0.4	1
26	Spatially Resolving Lithiation in Silicon-Graphite Composite Electrodes via in Situ High-Energy X-ray Diffraction Computed Tomography. Nano Letters, 2019, 19, 3811-3820.	9.1	73
27	Synchronized electrospinning and electro spraying technique for manufacturing of all-solid-state lithium-ion batteries. Journal of Power Sources, 2019, 431, 17-24.	7.8	23
28	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
29	Electrochemically induced fractures in crystalline silicon anodes. Journal of Power Sources, 2019, 425, 44-49.	7.8	14
30	Interfacially Induced Cascading Failure in Graphite-Silicon Composite Anodes. Advanced Science, 2019, 6, 1801007.	11.2	66
31	Three-dimensional electronic resistivity mapping of solid electrolyte interphase on Si anode materials. Nano Energy, 2019, 55, 477-485.	16.0	56
32	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
33	An artificial interphase enables reversible magnesium chemistry in carbonate electrolytes. Nature Chemistry, 2018, 10, 532-539.	13.6	347
34	Operando X-ray photoelectron spectroscopy of solid electrolyte interphase formation and evolution in Li <sub>2</sub> S-P <sub>2</sub> S <sub>5</sub> solid-state electrolytes. Nature Communications, 2018, 9, 2490.	12.8	170
35	In Situ Engineering of the Electrode-Electrolyte Interface for Stabilized Overlithiated Cathodes. Advanced Materials, 2017, 29, 1604549.	21.0	26
36	Systematic Investigation of the Alucone-Coating Enhancement on Silicon Anodes. ACS Applied Materials & Interfaces, 2017, 9, 40143-40150.	8.0	18

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37	All-solid-state disordered LiTiS <sub>2</sub> pseudocapacitor. Journal of Materials Chemistry A, 2017, 5, 15661-15668.	10.3	13
38	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
39	Cross-linked aluminum dioxybenzene coating for stabilization of silicon electrodes. Nano Energy, 2016, 22, 202-210.	16.0	30
40	Molecular Layer Deposition for Surface Modification of Lithium-ion Battery Electrodes. Advanced Materials Interfaces, 2016, 3, 1600762.	3.7	59
41	Surface Modification of Silicon Anodes for Durable and High-Energy Lithium-Ion Batteries. ECS Meeting Abstracts, 2016, .	0.0	0
42	Surface Coating Effect on Si Nanowires Anodes for Lithium Ion Batteries. Microscopy and Microanalysis, 2015, 21, 321-322.	0.4	0
43	Improved Electrochemical Performance of Carbon-Coated LiFeBO <sub>3</sub> Nanoparticles for Lithium-Ion Batteries. Journal of Nanoscience and Nanotechnology, 2015, 15, 7186-7190.	0.9	4
44	Facile Synthesis of Lithium Sulfide Nanocrystals for Use in Advanced Rechargeable Batteries. ACS Applied Materials & Interfaces, 2015, 7, 28444-28451.	8.0	39
45	Mitigating irreversible capacity losses from carbon agents via surface modification. Journal of Power Sources, 2015, 275, 605-611.	7.8	14
46	Structure and Reactivity of Alucone-Coated Films on Si and Li <sub>x</sub> Si <sub>y</sub> Surfaces. ACS Applied Materials & Interfaces, 2015, 7, 11948-11955.	8.0	39
47	Surface-Coating Regulated Lithiation Kinetics and Degradation in Silicon Nanowires for Lithium Ion Battery. ACS Nano, 2015, 9, 5559-5566.	14.6	118
48	Surface Modification of Silicon Anodes for Durable and High-Energy Lithium-ion Batteries. Israel Journal of Chemistry, 2015, 55, 558-569.	2.3	21
49	Effect of Al <sub>2</sub> O <sub>3</sub> Coating on Stabilizing LiNi <sub>0.4</sub> Mn <sub>0.4</sub> Co <sub>0.2</sub> O <sub>2</sub> Cathodes. Chemistry of Materials, 2015, 27, 6146-6154.	6.7	185
50	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
51	Reversible High-Capacity Si Nanocomposite Anodes for Lithium-ion Batteries Enabled by Molecular Layer Deposition. Advanced Materials, 2014, 26, 1596-1601.	21.0	169
52	Direct synthesis of thermochromic VO <sub>2</sub> through hydrothermal reaction. Journal of Solid State Chemistry, 2014, 212, 237-241.	2.9	62
53	Phase evolution for conversion reaction electrodes in lithium-ion batteries. Nature Communications, 2014, 5, 3358.	12.8	163
54	Effect of interface modifications on voltage fade in 0.5Li <sub>2</sub> MnO <sub>3</sub> ·0.5LiNi <sub>0.375</sub> Mn <sub>0.375</sub> Co <sub>0.25</sub> O <sub>2</sub> cathode materials. Journal of Power Sources, 2014, 249, 509-514.	7.8	89

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55	Towards understanding the rate capability of layered transition metal oxides $\text{LiNi}_y\text{Mn}_y\text{Co}_{1-2y}\text{O}_2$ . Journal of Power Sources, 2014, 268, 106-112.	7.8	41
56	Conformal Coatings of Cyclized PAN for Mechanically Resilient Si nano-Composite Anodes. Advanced Energy Materials, 2013, 3, 697-702.	19.5	134
57	Unexpected Improved Performance of ALD Coated $\text{LiCoO}_2$ /Graphite Li-Ion Batteries. Advanced Energy Materials, 2013, 3, 213-219.	19.5	206
58	Atomic layer deposition of amorphous $\text{TiO}_2$ on graphene as an anode for Li-ion batteries. Nanotechnology, 2013, 24, 424002.	2.6	76
59	Lithiation of silica through partial reduction. Applied Physics Letters, 2012, 100, .	3.3	57
60	P-type doping of lithium peroxide with carbon sheets. Applied Physics Letters, 2012, 101, .	3.3	19
61	A Novel Codoping Approach for Enhancing the Performance of $\text{LiFePO}_4$ Cathodes. Advanced Energy Materials, 2012, 2, 1028-1032.	19.5	72
62	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
63	Origin of Bonding between the SWCNT and the $\text{Fe}_3\text{O}_4(001)$ Surface and the Enhanced Electrical Conductivity. Journal of Physical Chemistry Letters, 2011, 2, 2853-2858.	4.6	17
64	Charge-driven structural transformation and valence versatility of boron sheets in magnesium borides. Physical Review B, 2011, 83, .	3.2	18
65	Extremely Durable High-Rate Capability of a $\text{LiNi}_{0.4}\text{Mn}_{0.4}\text{Co}_{0.2}\text{O}_2$ Cathode Enabled with Single-Walled Carbon Nanotubes. Advanced Energy Materials, 2011, 1, 58-62.	19.5	74
66	HWCVD $\text{MoO}_3$ nanoparticles and a-Si for next generation Li-ion anodes. Thin Solid Films, 2011, 519, 4495-4497.	1.8	22
67	Nanostructured $\text{Fe}_3\text{O}_4$ /SWNT Electrode: Binder-Free and High-Rate Li-Ion Anode. Advanced Materials, 2010, 22, E145-9.	21.0	556
68	High-Capacity and High-Rate Anodes for Li-Ion Batteries. ECS Meeting Abstracts, 2010, , .	0.0	0
69	Electrospun nano-vanadium pentoxide cathode. Electrochemistry Communications, 2009, 11, 522-525.	4.7	118
70	Nanoscale single-crystal vanadium oxides with layered structure by electrospinning and hydrothermal methods. Solid State Ionics, 2008, 179, 1721-1724.	2.7	30
71	Challenges for and Pathways toward Li-Metal-Based All-Solid-State Batteries. ACS Energy Letters, 0, , 1399-1404.	17.4	228