Fudong Han

List of Publications by Year
in descending order

80 papers	16,839 citations	23544 58 h-index	62565 80 g-index
84 all docs	84 docs citations	84 times ranked	13351 citing authors

#	Article	IF	Citations
1	Highly reversible zinc metal anode for aqueous batteries. Nature Materials, 2018, 17, 543-549.	13.3	2,080
2	Expanded graphite as superior anode for sodium-ion batteries. Nature Communications, 2014, 5, 4033.	5.8	1,472
3	Zn/MnO₂ Battery Chemistry With H⁺ and Zn²⁺ Coinsertion. Journal of the American Chemical Society, 2017, 139, 9775-9778.	6.6	1,375
4	High electronic conductivity as the origin of lithium dendrite formation within solid electrolytes. Nature Energy, 2019, 4, 187-196.	19.8	1,099
5	Electrochemical Stability of Li₁₀GeP₂S₁₂ and Li₇La₃Zr₂O₁₂ Solid Electrolytes. Advanced Energy Materials, 2016, 6, 1501590.	10.2	781
6	All-temperature batteries enabled by fluorinated electrolytes with non-polar solvents. Nature Energy, 2019, 4, 882-890.	19.8	557
7	Fluorinated solid electrolyte interphase enables highly reversible solid-state Li metal battery. Science Advances, 2018, 4, eaau9245.	4.7	521
8	Interphase Engineering Enabled All-Ceramic Lithium Battery. Joule, 2018, 2, 497-508.	11.7	378
9	Red Phosphorusâ€“Single-Walled Carbon Nanotube Composite as a Superior Anode for Sodium Ion Batteries. ACS Nano, 2015, 9, 3254-3264.	7.3	359
10	Lithium/Sulfide Allâ€Solidâ€State Batteries using Sulfide Electrolytes. Advanced Materials, 2021, 33, e2000751.	11.1	356
11	High-Performance All-Solid-State Lithiumâ€“Sulfur Battery Enabled by a Mixed-Conductive Li₂S Nanocomposite. Nano Letters, 2016, 16, 4521-4527.	4.5	333
12	Highâ€Performance Allâ€Solidâ€State Lithiumâ€“Sulfur Batteries Enabled by Amorphous Sulfurâ€Coated Reduced Graphene Oxide Cathodes. Advanced Energy Materials, 2017, 7, 1602923.	10.2	331
13	Identifying the components of the solidâ€“electrolyte interphase in Li-ion batteries. Nature Chemistry, 2019, 11, 789-796.	6.6	331
14	Suppressing Li Dendrite Formation in Li₂Sâ€P₂S₅ Solid Electrolyte by LiI Incorporation. Advanced Energy Materials, 2018, 8, 1703644.	10.2	303
15	A Battery Made from a Single Material. Advanced Materials, 2015, 27, 3473-3483.	11.1	291
16	Templateâ€Free Synthesis of Interconnected Hollow Carbon Nanospheres for Highâ€Performance Anode Material in Lithiumâ€Ion Batteries. Advanced Energy Materials, 2011, 1, 798-801.	10.2	284
17	A rechargeable aqueous Zn²⁺-battery with high power density and a long cycle-life. Energy and Environmental Science, 2018, 11, 3168-3175.	15.6	258
18	High-Voltage Aqueous Magnesium Ion Batteries. ACS Central Science, 2017, 3, 1121-1128.	5.3	256

#	Article	IF	Citations
19	3D Si/C Fiber Paper Electrodes Fabricated Using a Combined Electrospray/Electrospinning Technique for Liâ€ion Batteries. Advanced Energy Materials, 2015, 5, 1400753.	10.2	247
20	Interface engineering of sulfide electrolytes for all-solid-state lithium batteries. Nano Energy, 2018, 53, 958-966.	8.2	227
21	Local electronic structure variation resulting in Li â€˜filamentâ€™ formation within solid electrolytes. Nature Materials, 2021, 20, 1485-1490.	13.3	226
22	A Rechargeable Al/S Battery with an Ionicâ€Liquid Electrolyte. Angewandte Chemie - International Edition, 2016, 55, 9898-9901.	7.2	215
23	Superior Stable Selfâ€Healing SnP₃ Anode for Sodiumâ€Ion Batteries. Advanced Energy Materials, 2015, 5, 1500174.	10.2	197
24	High Interfacial-Energy Interphase Promoting Safe Lithium Metal Batteries. Journal of the American Chemical Society, 2020, 142, 2438-2447.	6.6	195
25	Stabilizing high voltage LiCoO₂ cathode in aqueous electrolyte with interphase-forming additive. Energy and Environmental Science, 2016, 9, 3666-3673.	15.6	190
26	Flexible Aqueous Liâ€Ion Battery with High Energy and Power Densities. Advanced Materials, 2017, 29, 1701972.	11.1	175
27	â€œWater-in-Saltâ€• electrolytes enable green and safe Li-ion batteries for large scale electric energy storage applications. Journal of Materials Chemistry A, 2016, 4, 6639-6644.	5.2	172
28	A Highly Reversible, Dendriteâ€Free Lithium Metal Anode Enabled by a Lithiumâ€Fluorideâ€Enriched Interphase. Advanced Materials, 2020, 32, e1906427.	11.1	168
29	Hybrid Mg²⁺/Li⁺ Battery with Long Cycle Life and High Rate Capability. Advanced Energy Materials, 2015, 5, 1401507.	10.2	155
30	Cathode-Supported All-Solid-State Lithiumâ€“Sulfur Batteries with High Cell-Level Energy Density. ACS Energy Letters, 2019, 4, 1073-1079.	8.8	148
31	In situ synthesis of one-dimensional MWCNT/SiC porous nanocomposites with excellent microwave absorption properties. Journal of Materials Chemistry, 2011, 21, 13581.	6.7	143
32	Preparation of Carbon Nano-Onions and Their Application as Anode Materials for Rechargeable Lithium-Ion Batteries. Journal of Physical Chemistry C, 2011, 115, 8923-8927.	1.5	143
33	Ultrastable All-Solid-State Sodium Rechargeable Batteries. ACS Energy Letters, 2020, 5, 2835-2841.	8.8	142
34	High energy-density and reversibility of iron fluoride cathode enabled via an intercalation-extrusion reaction. Nature Communications, 2018, 9, 2324.	5.8	136
35	High-Performance All-Inorganic Solid-State Sodiumâ€“Sulfur Battery. ACS Nano, 2017, 11, 4885-4891.	7.3	133
36	Thermodynamics and Kinetics of Sulfur Cathode during Discharge in MgTFSI₂â€“DME Electrolyte. Advanced Materials, 2018, 30, 1704313.	11.1	122

#	Article	IF	Citations
37	Ether-based electrolyte enabled Na/FeS2 rechargeable batteries. Electrochemistry Communications, 2015, 54, 18-22.	2.3	121
38	Reducing Mg Anode Overpotential via Ion Conductive Surface Layer Formation by Iodine Additive. Advanced Energy Materials, 2018, 8, 1701728.	10.2	107
39	Electrochemical Techniques for Intercalation Electrode Materials in Rechargeable Batteries. Accounts of Chemical Research, 2017, 50, 1022-1031.	7.6	105
40	Spinel LiNi_{0.5}Mn_{1.5}O₄ Cathode for Highâ€Energy Aqueous Lithiumâ€ion Batteries. Advanced Energy Materials, 2017, 7, 1600922.	10.2	103
41	High-Performance All-Solid-State Naâ€“S Battery Enabled by Castingâ€“Annealing Technology. ACS Nano, 2018, 12, 3360-3368.	7.3	102
42	â€œWater-in-Saltâ€•electrolyte enabled LiMn2O4/TiS2 Lithium-ion batteries. Electrochemistry Communications, 2017, 82, 71-74.	2.3	99
43	Existence of Solid Electrolyte Interphase in Mg Batteries: Mg/S Chemistry as an Example. ACS Applied Materials & Interfaces, 2018, 10, 14767-14776.	4.0	99
44	Tailoring Surface Acidity of Metal Oxide for Better Polysulfide Entrapment in Liâ€S Batteries. Advanced Functional Materials, 2016, 26, 7164-7169.	7.8	95
45	Nanostructuring versus microstructuring in battery electrodes. Nature Reviews Materials, 2022, 7, 736-746.	23.3	92
46	Roll-to-roll fabrication of organic nanorod electrodes for sodium ion batteries. Nano Energy, 2015, 13, 537-545.	8.2	91
47	Stabilizing high sulfur loading Liâ€“S batteries by chemisorption of polysulfide on three-dimensional current collector. Nano Energy, 2016, 30, 700-708.	8.2	90
48	A Highâ€Performance Liâ€“Bâ€“H Electrolyte for Allâ€Solidâ€State Li Batteries. Advanced Functional Materials, 2019, 29, 1809219.	7.8	88
49	Grain-boundary-resistance-less Na3SbS4-Se solid electrolytes for all-solid-state sodium batteries. Nano Energy, 2019, 66, 104109.	8.2	77
50	Carbon cage encapsulating nano-cluster Li2S by ionic liquid polymerization and pyrolysis for high performance Liâ€“S batteries. Nano Energy, 2015, 13, 467-473.	8.2	76
51	Sulfur-Embedded FeS₂ as a High-Performance Cathode for Room Temperature All-Solid-State Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2020, 12, 18519-18525.	4.0	76
52	â€œWater-in-saltâ€•polymer electrolyte for Li-ion batteries. Energy and Environmental Science, 2020, 13, 2878-2887.	15.6	74
53	Reverse Microemulsion Synthesis of Sulfur/Graphene Composite for Lithium/Sulfur Batteries. ACS Nano, 2017, 11, 9048-9056.	7.3	73
54	Mechanism Study on the Interfacial Stability of a Lithium Garnet-Type Oxide Electrolyte against Cathode Materials. ACS Applied Energy Materials, 2018, 1, 5968-5976.	2.5	72

#	Article	IF	Citations
55	Construction of 3D Electronic/Ionic Conduction Networks for Allâ€Solidâ€State Lithium Batteries. Small, 2019, 15, e1905849.	5.2	69
56	Bio-inspired Nanoscaled Electronic/Ionic Conduction Networks for Room-Temperature All-Solid-State Sodium-Sulfur Battery. Nano Today, 2020, 33, 100860.	6.2	67
57	A Rechargeable Al/S Battery with an Ionicâ€Liquid Electrolyte. Angewandte Chemie, 2016, 128, 10052-10055.	1.6	64
58	Architectural design and fabrication approaches for solid-state batteries. MRS Bulletin, 2018, 43, 775-781.	1.7	64
59	Dual-template synthesis of ordered mesoporous carbon/Fe₂O₃nanowires: high porosity and structural stability for supercapacitors. Journal of Materials Chemistry A, 2015, 3, 21501-21510.	5.2	46
60	Long Cycle Life All-Solid-State Sodium Ion Battery. ACS Applied Materials & Interfaces, 2018, 10, 39645-39650.	4.0	44
61	Aqueous lithium-ion batteries with niobium tungsten oxide anodes for superior volumetric and rate capability. Energy Storage Materials, 2020, 27, 506-513.	9.5	40
62	Li alloy anodes for high-rate and high-areal-capacity solid-state batteries. Journal of Materials Chemistry A, 2022, 10, 12350-12358.	5.2	33
63	Facile Synthesis of Si₃N₄ Nanocrystals Via an Organicâ€“Inorganic Reaction Route. Journal of the American Ceramic Society, 2009, 92, 535-538.	1.9	28
64	Simple synthesis of mesoporous boron nitride with strong cathodoluminescence emission. Journal of Solid State Chemistry, 2011, 184, 859-862.	1.4	26
65	Microwave absorption properties of TiN nanoparticles. Journal of Alloys and Compounds, 2011, 509, 10032-10035.	2.8	23
66	Microwave absorption properties of MWCNT-SiC composites synthesized via a low temperature induced reaction. AIP Advances, 2011, 1, .	0.6	23
67	Toughening and reinforcing zirconia ceramics by introducing boron nitride nanotubes. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 546, 301-306.	2.6	22
68	One-step preparation of six-armed Fe3O4 dendrites with carbon coating applicable for anode material of lithium-ion battery. Materials Letters, 2011, 65, 3157-3159.	1.3	21
69	Synthesis of Carbon Spheres via a Low-Temperature Metathesis Reaction. Journal of Physical Chemistry C, 2008, 112, 12134-12137.	1.5	15
70	Lowâ€Temperature Synthesis of Meshy Boron Nitride with a Large Surface Area. European Journal of Inorganic Chemistry, 2010, 2010, 3174-3178.	1.0	14
71	Interfacial challenges in all-solid-state lithium batteries. Current Opinion in Electrochemistry, 2022, 33, 100933.	2.5	14
72	Rational Designed Mixed-Conductive Sulfur Cathodes for All-Solid-State Lithium Batteries. ACS Applied Materials & Interfaces, 2020, 12, 36066-36071.	4.0	12

#	Article	IF	Citations
73	Thermal formation of porous Fe3O4/C microspheres and the lithium storage performance. Journal of Alloys and Compounds, 2014, 597, 30-35.	2.8	11
74	Alloying of Alkali Metals with Tellurene. Advanced Energy Materials, 2021, 11, 2003248.	10.2	11
75	Large-scale preparation of hollow graphitic carbon nanospheres. Materials Chemistry and Physics, 2013, 137, 904-909.	2.0	10
76	Simple Preparation of Carbon Nanofibers with Graphene Layers Perpendicular to the Length Direction and the Excellent Li-Ion Storage Performance. ACS Applied Materials & Interfaces, 2015, 7, 5107-5115.	4.0	8
77	Rapid, Lowâ€Temperature Synthesis of Î²â€SiC Nanowires from Si and Graphite. Journal of the American Ceramic Society, 2010, 93, 2415-2418.	1.9	7
78	Solid-State Batteries: An Introduction. ACS Symposium Series, 0, , 1-20.	0.5	2
79	A catalyst-free method to silicon nanowires at relative low temperature. Journal of Crystal Growth, 2010, 312, 3579-3582.	0.7	1
80	Lithium-Sulfur Solid-State Batteries. ACS Symposium Series, 0, , 267-288.	0.5	1