Jiadeng Zhu

List of Publications by Year
in descending order

81 papers	4,910 citations	87888 38 h-index	95266 68 g-index
83 all docs	83 docs citations	83 times ranked	5349 citing authors

#	Article	IF	Citations
1	Li_{0.33}La_{0.557}TiO₃ ceramic nanofiber-enhanced polyethylene oxide-based composite polymer electrolytes for all-solid-state lithium batteries. Journal of Materials Chemistry A, 2018, 6, 4279-4285.	10.3	280
2	Nitrogen-doped carbon nanofibers derived from polyacrylonitrile for use as anode material in sodium-ion batteries. Carbon, 2015, 94, 189-195.	10.3	260
3	Highly porous polyacrylonitrile/graphene oxide membrane separator exhibiting excellent anti-self-discharge feature for high-performance lithiumâ€“sulfur batteries. Carbon, 2016, 101, 272-280.	10.3	214
4	Singleâ€Ion Conducting Polymer Electrolytes for Solidâ€State Lithiumâ€“Metal Batteries: Design, Performance, and Challenges. Advanced Energy Materials, 2021, 11, 2003836.	19.5	206
5	A sustainable platform of lignin: From bioresources to materials and their applications in rechargeable batteries and supercapacitors. Progress in Energy and Combustion Science, 2020, 76, 100788.	31.2	191
6	A novel separator coated by carbon for achieving exceptional high performance lithium-sulfur batteries. Nano Energy, 2016, 20, 176-184.	16.0	189
7	Developments of Advanced Electrospinning Techniques: A Critical Review. Advanced Materials Technologies, 2021, 6, 2100410.	5.8	183
8	Understanding glass fiber membrane used as a novel separator for lithiumâ€“sulfur batteries. Journal of Membrane Science, 2016, 504, 89-96.	8.2	152
9	Silica/polyacrylonitrile hybrid nanofiber membrane separators via sol-gel and electrospinning techniques for lithium-ion batteries. Journal of Power Sources, 2016, 313, 205-212.	7.8	141
10	Recent progress in polymer materials for advanced lithium-sulfur batteries. Progress in Polymer Science, 2019, 90, 118-163.	24.7	130
11	A novel bi-functional double-layer rGOâ€“PVDF/PVDF composite nanofiber membrane separator with enhanced thermal stability and effective polysulfide inhibition for high-performance lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2017, 5, 15096-15104.	10.3	121
12	High cyclability of carbon-coated TiO2 nanoparticles as anode for sodium-ion batteries. Electrochimica Acta, 2015, 157, 142-148.	5.2	118
13	Garnet-rich composite solid electrolytes for dendrite-free, high-rate, solid-state lithium-metal batteries. Energy Storage Materials, 2020, 26, 448-456.	18.0	104
14	A laser ultrasound transducer using carbon nanofibersâ€“polydimethylsiloxane composite thin film. Applied Physics Letters, 2015, 106, .	3.3	103
15	Flexible electrolyte-cathode bilayer framework with stabilized interface for room-temperature all-solid-state lithium-sulfur batteries. Energy Storage Materials, 2019, 17, 220-225.	18.0	98
16	Poly(vinyl Alcohol) Borate Gel Polymer Electrolytes Prepared by Electrodeposition and Their Application in Electrochemical Supercapacitors. ACS Applied Materials & Interfaces, 2016, 8, 3473-3481.	8.0	92
17	Ultrafine and polar ZrO2-inlaid porous nitrogen-doped carbon nanofiber as efficient polysulfide absorbent for high-performance lithium-sulfur batteries with long lifespan. Chemical Engineering Journal, 2018, 349, 376-387.	12.7	91
18	Graphene reinforced carbon fibers. Science Advances, 2020, 6, eaaz4191.	10.3	87

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19	Copper-doped Li4Ti5O12/carbon nanofiber composites as anode for high-performance sodium-ion batteries. Journal of Power Sources, 2014, 272, 860-865.	7.8	86
20	Biomass-derived porous carbon modified glass fiber separator as polysulfide reservoir for Li-S batteries. Journal of Colloid and Interface Science, 2018, 513, 231-239.	9.4	86
21	Glass fiber separatorÂcoated by porous carbon nanofiber derived fromÂimmiscible PAN/PMMA forÂhigh-performance lithium-sulfur batteries. Journal of Membrane Science, 2018, 552, 31-42.	8.2	83
22	Sulfur gradient-distributed CNF composite: a self-inhibiting cathode for binder-free lithiumâ€"sulfur batteries. Chemical Communications, 2014, 50, 10277-10280.	4.1	75
23	Centrifugal spinning: A novel approach to fabricate porous carbon fibers as binder-free electrodes for electric double-layer capacitors. Journal of Power Sources, 2015, 273, 502-510.	7.8	72
24	In-situ formation of tin-antimony sulfide in nitrogen-sulfur Co-doped carbon nanofibers as high performance anode materials for sodium-ion batteries. Carbon, 2017, 120, 380-391.	10.3	71
25	Use of a tin antimony alloy-filled porous carbon nanofiber composite as an anode in sodium-ion batteries. RSC Advances, 2015, 5, 30793-30800.	3.6	70
26	Hierarchical multi-component nanofiber separators for lithium polysulfide capture in lithiumâ€"sulfur batteries: an experimental and molecular modeling study. Journal of Materials Chemistry A, 2016, 4, 13572-13581.	10.3	66
27	Porous one-dimensional carbon/iron oxide composite for rechargeable lithium-ion batteries with high and stable capacity. Journal of Alloys and Compounds, 2016, 672, 79-85.	5.5	66
28	High-Performance 3-D Fiber Network Composite Electrolyte Enabled with Li-Ion Conducting Nanofibers and Amorphous PEO-Based Cross-Linked Polymer for Ambient All-Solid-State Lithium-Metal Batteries. Advanced Fiber Materials, 2019, 1, 46-60.	16.1	59
29	Chemical vapor deposited MoS2/electrospun carbon nanofiber composite as anode material for high-performance sodium-ion batteries. Electrochimica Acta, 2016, 222, 1751-1760.	5.2	55
30	Low-temperature carbonization of polyacrylonitrile/graphene carbon fibers: A combined ReaxFF molecular dynamics and experimental study. Carbon, 2021, 174, 345-356.	10.3	55
31	The study on structure and electrochemical sodiation of one-dimensional nanocrystalline TiO2@C nanofiber composites. Electrochimica Acta, 2015, 176, 989-996.	5.2	54
32	Recent Developments and Challenges in Hybrid Solid Electrolytes for Lithium-Ion Batteries. Frontiers in Energy Research, 2020, 8, .	2.3	52
33	Photosensitizer-Embedded Polyacrylonitrile Nanofibers as Antimicrobial Non-Woven Textile. Nanomaterials, 2016, 6, 77.	4.1	51
34	In Situ Polymerization of Nanostructured Conductive Polymer on 3D Sulfur/Carbon Nanofiber Composite Network as Cathode for Highâ€Performance Lithiumâ€"Sulfur Batteries. Advanced Materials Interfaces, 2018, 5, 1701598.	3.7	50
35	Synthesis of Nitrogenâ€Doped Electrospun Carbon Nanofibers as Anode Material for Highâ€Performance Sodiumâ€Ion Batteries. Energy Technology, 2016, 4, 1440-1449.	3.8	49
36	Reduced Graphene Oxide-Incorporated SnSb@CNF Composites as Anodes for High-Performance Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2018, 10, 9696-9703.	8.0	46

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37	BODIPY-embedded electrospun materials in antimicrobial photodynamic inactivation. Photochemical and Photobiological Sciences, 2019, 18, 1923-1932.	2.9	42
38	Effect of reduced graphene oxide reduction degree on the performance of polysulfide rejection in lithium-sulfur batteries. Carbon, 2018, 126, 594-600.	10.3	40
39	High-strength, thermally stable nylon 6,6 composite nanofiber separators for lithium-ion batteries. Journal of Materials Science, 2017, 52, 5232-5241.	3.7	39
40	Preparation and characterization of isotropic pitch-based carbon fiber. Carbon Letters, 2013, 14, 94-98.	5.9	39
41	Electrospun ZnOâ€“SnO2 composite nanofibers with enhanced electrochemical performance as lithium-ion anodes. Ceramics International, 2016, 42, 10826-10832.	4.8	38
42	Surface engineering via self-assembly on PEDOT: PSS fibers: Biomimetic fluff-like morphology and sensing application. Chemical Engineering Journal, 2021, 425, 131551.	12.7	38
43	Unveiling Carbon Ring Structure Formation Mechanisms in Polyacrylonitrile-Derived Carbon Fibers. ACS Applied Materials & Interfaces, 2019, 11, 42288-42297.	8.0	36
44	Centrifugally-spun tin-containing carbon nanofibers as anode material for lithium-ion batteries. Journal of Materials Science, 2015, 50, 1094-1102.	3.7	34
45	Superior high-voltage aqueous carbon/carbon supercapacitors operating with in situ electrodeposited polyvinyl alcohol borate gel polymer electrolytes. Journal of Materials Chemistry A, 2016, 4, 16588-16596.	10.3	34
46	Mechanically robust and superior conductive n-type polymer binders for high-performance micro-silicon anodes in lithium-ion batteries. Journal of Materials Chemistry A, 2021, 9, 3472-3481.	10.3	34
47	Pyrolytic-carbon coating in carbon nanotube foams for better performance in supercapacitors. Journal of Power Sources, 2017, 343, 492-501.	7.8	33
48	High-performance SnSb@rGO@CMF composites as anode material for sodium-ion batteries through high-speed centrifugal spinning. Journal of Alloys and Compounds, 2018, 752, 296-302.	5.5	33
49	Multifunctional Fibroblasts Enhanced via Thermal and Freeze-Drying Post-treatments of Aligned Electrospun Nanofiber Membranes. Advanced Fiber Materials, 2021, 3, 26-37.	16.1	31
50	Lithium-substituted sodium layered transition metal oxide fibers as cathodes for sodium-ion batteries. Energy Storage Materials, 2015, 1, 74-81.	18.0	29
51	A highly adhesive, self-healing and perdurable PEDOT:PSS/PAAâ€“Fe³⁺ gel enabled by multiple non-covalent interactions for multi-functional wearable electronics. Journal of Materials Chemistry C, 2022, 10, 6271-6280.	5.5	29
52	NiCu Alloy Nanoparticle-Loaded Carbon Nanofibers for Phenolic Biosensor Applications. Sensors, 2015, 15, 29419-29433.	3.8	26
53	Three-layer coreâ€“shell Ag/AgCl/PEDOT: PSS composite fibers via a one-step single-nozzle technique enabled skin-inspired tactile sensors. Chemical Engineering Journal, 2022, 442, 136270.	12.7	26
54	Centrifugally Spun SnO₂ Microfibers Composed of Interconnected Nanoparticles as the Anode in Sodiumâ€Ion Batteries. ChemElectroChem, 2015, 2, 1947-1956.	3.4	25

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55	Converting PBO fibers into carbon fibers by ultrafast carbonization. Carbon, 2020, 159, 432-442.	10.3	25
56	Tin nanoparticles embedded in ordered mesoporous carbon as high-performance anode for sodium-ion batteries. Journal of Solid State Electrochemistry, 2017, 21, 1385-1395.	2.5	23
57	Study on the stabilization of isotropic pitch based fibers. Macromolecular Research, 2015, 23, 79-85.	2.4	22
58	Carbonâ€Coated Magnesium Ferrite Nanofibers for Lithiumâ€Ion Battery Anodes with Enhanced Cycling Performance. Energy Technology, 2017, 5, 1364-1372.	3.8	22
59	Urea-treated wet-spun PEDOT: PSS fibers for achieving high-performance wearable supercapacitors. Composites Communications, 2021, 27, 100885.	6.3	22
60	Electrospun Separator Based on Sulfonated Polyoxadiazole with Outstanding Thermal Stability and Electrochemical Properties for Lithium-Ion Batteries. ACS Applied Energy Materials, 2021, 4, 879-887.	5.1	21
61	Synthesis and Properties of Polyimide Composites Containing Graphene Oxide Via In-Situ Polymerization. Carbon Letters, 2012, 13, 230-235.	5.9	21
62	Cost-effective carbon fiber precursor selections of polyacrylonitrile-derived blend polymers: carbonization chemistry and structural characterizations. Nanoscale, 2022, 14, 6357-6372.	5.6	20
63	Rational Polymer Design of Stretchable Poly(ionic liquid) Membranes for Dual Applications. Macromolecules, 2021, 54, 896-905.	4.8	19
64	Rationally designed carbon coated ZnSnS3 nano cubes as high-performance anode for advanced sodium-ion batteries. Electrochimica Acta, 2018, 292, 646-654.	5.2	18
65	Unraveling the Role of Neutral Units for Single-Ion Conducting Polymer Electrolytes. ACS Applied Materials & Interfaces, 2021, 13, 51525-51534.	8.0	18
66	Carbon-enhanced centrifugally-spun SnSb/carbon microfiber composite as advanced anode material for sodium-ion battery. Journal of Colloid and Interface Science, 2019, 536, 655-663.	9.4	17
67	Ionic/electronic conductivity regulation of n-type polyoxadiazole lithium sulfonate conductive polymer binders for high-performance silicon microparticle anodes. Chinese Chemical Letters, 2021, 32, 203-209.	9.0	17
68	Metal salt modified PEDOT: PSS fibers with enhanced elongation and electroconductivity for wearable e-textiles. Composites Communications, 2021, 25, 100700.	6.3	17
69	Fabrication and electrochemical behavior study of nano-fibrous sodium titanate composite. Materials Letters, 2017, 188, 176-179.	2.6	15
70	Hexanedioic acid mediated <i>in situ</i> functionalization of interconnected graphitic 3D carbon nanofibers as Pt support for trifunctional electrocatalysts. Sustainable Energy and Fuels, 2020, 4, 2808-2822.	4.9	13
71	Constructing High-Energy-Density Aqueous Supercapacitors with Potassium Iodide-Doped Electrolytes by a Precharging Method. ACS Applied Energy Materials, 2020, 3, 2674-2681.	5.1	13
72	Electrospun Nanofibers Enabled Advanced Lithiumâ€"Sulfur Batteries. Accounts of Materials Research, 2022, 3, 149-160.	11.7	13

#	Article	IF	Citations
73	A hybrid lithium sulfonated polyoxadiazole derived single-ion conducting gel polymer electrolyte enabled effective suppression of dendritic lithium growth. Chinese Chemical Letters, 2022, 33, 1025-1031.	9.0	10
74	Comparing the structures and sodium storage properties of centrifugally spun SnO2 microfiber anodes with/without chemical vapor deposition. Journal of Materials Science, 2016, 51, 4549-4558.	3.7	8
75	Highly Stretchable, Conductive and Longâ€Term Stable PEDOT:PSS Fibers with Surface Arrays for Wearable Sensors. Advanced Engineering Materials, 2022, 24, .	3.5	8
76	Recent Developments of Tin (II) Sulfide/Carbon Composites for Achieving High-Performance Lithium Ion Batteries: A Critical Review. Nanomaterials, 2022, 12, 1246.	4.1	8
77	Estimating Monomer Sequence Distributions in Tetrapolyacrylates. Macromolecules, 2015, 48, 58-63.	4.8	6
78	Communicationâ€"Lithium Sulfonated Polyoxadiazole as a Novel Single-Ion Polymer Electrolyte in Lithium-Ion Batteries. Journal of the Electrochemical Society, 2020, 167, 070518.	2.9	6
79	Novel hollow Î±-Fe2O3 nanofibers with robust performance enabled multi-functional applications. Environmental Research, 2022, 212, 113459.	7.5	6
80	Preparation and characterization of a class of selfâ€doping aromatic polyoxadiazole electrochromic materials. Journal of Applied Polymer Science, 2020, 137, 49406.	2.6	5
81	Study on the measurement of initial color and fading speed of photochromic lens. Fibers and Polymers, 2012, 13, 1179-1184.	2.1	3