Hongli Zhu

List of Publications by Year
in descending order

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112 papers	13,758 citations	30551 56 h-index	28425 109 g-index
115 all docs	115 docs citations	115 times ranked	19671 citing authors

#	Article	IF	Citations
1	Interconnected stacked hollow carbon spheres uniformly embedded with Ni2P nanoparticles as scalable host for practical Li metal anode. Chemical Engineering Journal, 2022, 428, 132648.	6.6	18
2	Recycling of natural fiber composites: Challenges and opportunities. Resources, Conservation and Recycling, 2022, 177, 105962.	5.3	62
3	Compressible Ionized Natural 3D Interconnected Loofah Membrane for Salinity Gradient Power Generation. Small, 2022, 18, e2104320.	5.2	22
4	High Surface Area Nâ€Doped Carbon Fibers with Accessible Reaction Sites for Allâ€Solidâ€State Lithiumâ€Sulfur Batteries. Small, 2022, 18, e2105678.	5.2	16
5	Bipolar stackings high voltage and high cell level energy density sulfide based all-solid-state batteries. Energy Storage Materials, 2022, 48, 458-465.	9.5	46
6	Longâ€Cycling Sulfideâ€Based Allâ€Solidâ€State Batteries Enabled by Electrochemoâ€Mechanically Stable Electrodes. Advanced Materials, 2022, 34, e2200401.	11.1	62
7	SPEEK scaling UP. Joule, 2022, 6, 718-720.	11.7	4
8	Turning Natural Herbaceous Fibers into Advanced Materials for Sustainability. Advanced Fiber Materials, 2022, 4, 736-757.	7.9	31
9	Largeâ€Scale Manufacturing of Patternâ€Integrated Paper Liâ€Ion Microbatteries through Rollâ€toâ€Roll Flexographic Printing. Advanced Materials Technologies, 2022, 7, .	3.0	9
10	Allâ€Solidâ€State Liâ€“S Batteries Enhanced by Interface StabilizationÂand Reaction Kinetics Promotion through 2D Transition Metal Sulfides. Advanced Materials Interfaces, 2022, 9, .	1.9	10
11	A Modeling Approach for Optimization of Printed NMC622 Cathode for Capacity Density Improvement under Fast Charging Condition- 3D Simulation and Experimental Validation. , 2022, , .		3
12	Molecular Engineering of Biorefining Lignin Waste for Solid-State Electrolyte. ACS Sustainable Chemistry and Engineering, 2022, 10, 8704-8714.	3.2	7
13	Biopolymers Derived from Trees as Sustainable Multifunctional Materials: A Review. Advanced Materials, 2021, 33, e2001654.	11.1	54
14	Operando EDXRD Study of Allâ€Solidâ€State Lithium Batteries Coupling Thioantimonate Superionic Conductors with Metal Sulfide. Advanced Energy Materials, 2021, 11, 2002861.	10.2	25
15	Ice-Templated Anisotropic Flame-Resistant Boron Nitride Aerogels Enhanced through Surface Modification and Cellulose Nanofibrils. ACS Applied Polymer Materials, 2021, 3, 1358-1367.	2.0	20
16	Photocatalytic Rejuvenation Enabled Self-Sanitizing, Reusable, and Biodegradable Masks against COVID-19. ACS Nano, 2021, 15, 11992-12005.	7.3	98
17	Biopolymeric Materials: Biopolymers Derived from Trees as Sustainable Multifunctional Materials: A Review (Adv. Mater. 28/2021). Advanced Materials, 2021, 33, 2170220.	11.1	2
18	Additive Manufacturing of 3D Aerogels and Porous Scaffolds: A Review. Advanced Functional Materials, 2021, 31, 2103410.	7.8	61

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19	Versatile zeroâ€•to threeâ€dimensional carbon for electrochemical energy storage. , 2021, 3, 895-915.		41
20	Self-Stabilized LiNi0.8Mn0.1Co0.1O2 in thiophosphate-based all-solid-state batteries through extra LiOH. Energy Storage Materials, 2021, 41, 505-514.	9.5	36
21	A high ion-conductive and stable porous membrane for neutral aqueous Zn-based flow batteries. Journal of Membrane Science, 2021, 640, 119804.	4.1	13
22	Amphipathic Binder Integrating Ultrathin and Highly Ionâ€Conductive Sulfide Membrane for Cellâ€Level Highâ€Energyâ€Density Allâ€Solidâ€State Batteries. Advanced Materials, 2021, 33, e2105505.	11.1	52
23	Stable Thiophosphate-Based All-Solid-State Lithium Batteries through Conformally Interfacial Nanocoating. Nano Letters, 2020, 20, 1483-1490.	4.5	112
24	Novel gas sensing platform based on a stretchable laser-induced graphene pattern with self-heating capabilities. Journal of Materials Chemistry A, 2020, 8, 6487-6500.	5.2	135
25	Stable Li Metal Anode Enabled by Space Confinement and Uniform Curvature through Lithiophilic Nanotube Arrays. Advanced Energy Materials, 2020, 10, 1902819.	10.2	55
26	Processing Strategies to Improve Cell-Level Energy Density of Metal Sulfide Electrolyte-Based All-Solid-State Li Metal Batteries and Beyond. ACS Energy Letters, 2020, 5, 3468-3489.	8.8	68
27	Stretchable, ultrasensitive, and low-temperature NO2 sensors based on MoS2@rGO nanocomposites. Materials Today Physics, 2020, 15, 100265.	2.9	40
28	Biodegradable, Hygienic, and Compostable Tableware from Hybrid Sugarcane and Bamboo Fibers as Plastic Alternative. Matter, 2020, 3, 2066-2079.	5.0	107
29	An â€˜antifoulingâ€™ porous loofah sponge with internal microchannels as solar absorbers and water pumpers for thermal desalination. Journal of Materials Chemistry A, 2020, 8, 12323-12333.	5.2	118
30	High Phase Change Enthalpy Enabled by Nanocellulose Enhanced Shape Stable Boron Nitride Aerogel. ACS Applied Polymer Materials, 2020, 2, 3001-3009.	2.0	31
31	Lightweight and Construable Magnetic Wood for Electromagnetic Interference Shielding. Advanced Engineering Materials, 2020, 22, 2000257.	1.6	15
32	Functionalized Well-Aligned Channels Derived from Wood as a Convection-Enhanced Electrode for Aqueous Flow Batteries. ACS Applied Energy Materials, 2020, 3, 6249-6257.	2.5	19
33	Regulated lithium ionic flux through well-aligned channels for lithium dendrite inhibition in solid-state batteries. Energy Storage Materials, 2020, 31, 344-351.	9.5	48
34	Lithium Dendrite in All-Solid-State Batteries: Growth Mechanisms, Suppression Strategies, and Characterizations. Matter, 2020, 3, 57-94.	5.0	334
35	Mass Transfer and Reaction Kinetic Enhanced Electrode for Highâ€Performance Aqueous Flow Batteries. Advanced Functional Materials, 2019, 29, 1903192.	7.8	50
36	Sulfideâ€Based Solidâ€State Electrolytes: Synthesis, Stability, and Potential for Allâ€Solidâ€State Batteries. Advanced Materials, 2019, 31, e1901131.	11.1	365

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37	Bioinspired Mineralization with Hydroxyapatite and Hierarchical Naturally Aligned Nanofibrillar Cellulose. ACS Applied Materials & Interfaces, 2019, 11, 27598-27604.	4.0	67
38	Superstrong and Tough Hydrogel through Physical Cross-Linking and Molecular Alignment. Biomacromolecules, 2019, 20, 4476-4484.	2.6	83
39	Stable and Highly Ion-Selective Membrane Made from Cellulose Nanocrystals for Aqueous Redox Flow Batteries. Nano Letters, 2019, 19, 8979-8989.	4.5	38
40	Aqueous Flow Batteries: Mass Transfer and Reaction Kinetic Enhanced Electrode for Highâ€Performance Aqueous Flow Batteries (Adv. Funct. Mater. 43/2019). Advanced Functional Materials, 2019, 29, 1970297.	7.8	0
41	Solidâ€State Batteries: Sulfideâ€Based Solidâ€State Electrolytes: Synthesis, Stability, and Potential for Allâ€Solidâ€State Batteries (Adv. Mater. 44/2019). Advanced Materials, 2019, 31, 1970311.	11.1	75
42	Bone-Inspired Mineralization with Highly Aligned Cellulose Nanofibers as Template. ACS Applied Materials & Interfaces, 2019, 11, 42486-42495.	4.0	41
43	Dualâ€Function, Tunable, Nitrogenâ€Doped Carbon for Highâ€Performance Li Metalâ€“Sulfur Full Cell. Small, 2019, 15, e1804609.	5.2	28
44	Abundant Organic Dye as an Anolyte for Aqueous Flow Battery with Multielectron Transfer. ACS Applied Energy Materials, 2019, 2, 7425-7437.	2.5	18
45	Stable lithiumâ€“sulfur full cells enabled by dual functional and interconnected mesocarbon arrays. Journal of Materials Chemistry A, 2019, 7, 3289-3297.	5.2	29
46	Understanding Phase Stability of Metallic 1T-MoS2 Anodes for Sodium-Ion Batteries. Condensed Matter, 2019, 4, 53.	0.8	18
47	3D Printed Highâ€Performance Lithium Metal Microbatteries Enabled by Nanocellulose. Advanced Materials, 2019, 31, e1807313.	11.1	226
48	Ligninâ€Derived Holey, Layered, and Thermally Conductive 3D Scaffold for Lithium Dendrite Suppression. Small Methods, 2019, 3, 1800539.	4.6	39
49	Tuning Chiral Nematic Pitch of Bioresourced Photonic Films via Coupling Organic Acid Hydrolysis. Advanced Materials Interfaces, 2019, 6, 1802010.	1.9	30
50	Plasmonicâ€Enhanced Cholesteric Films: Coassembling Anisotropic Gold Nanorods with Cellulose Nanocrystals. Advanced Optical Materials, 2019, 7, 1801816.	3.6	44
51	Metal-Free Aqueous Flow Battery with Novel Ultrafiltered Lignin as Electrolyte. ACS Sustainable Chemistry and Engineering, 2018, 6, 5394-5400.	3.2	52
52	Ion Transport Nanotube Assembled with Vertically Aligned Metallic MoS₂ for High Rate Lithiumâ€Ion Batteries. Advanced Energy Materials, 2018, 8, 1702779.	10.2	181
53	Molybdenum Sulfide Nanosheetâ€Based Hollow Porous Flat Boxes and Nanotubes for Efficient Electrochemical Hydrogen Evolution. ChemCatChem, 2018, 10, 459-464.	1.8	6
54	Fully Water-Soluble, High-Performance Transient Sensors on a Versatile Galactomannan Substrate Derived from the Endosperm. ACS Applied Materials & Interfaces, 2018, 10, 36664-36674.	4.0	26

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55	Bacterial-Derived, Compressible, and Hierarchical Porous Carbon for High-Performance Potassium-Ion Batteries. Nano Letters, 2018, 18, 7407-7413.	4.5	192
56	Lithiumâ€Ion Batteries: Ion Transport Nanotube Assembled with Vertically Aligned Metallic MoS₂ for High Rate Lithiumâ€Ion Batteries (Adv. Energy Mater. 15/2018). Advanced Energy Materials, 2018, 8, 1870071.	10.2	4
57	Metallic MoS₂ for High Performance Energy Storage and Energy Conversion. Small, 2018, 14, e1800640.	5.2	218
58	Stable Metal Anode enabled by Porous Lithium Foam with Superior Ion Accessibility. Advanced Materials, 2018, 30, e1802156.	11.1	115
59	Low temperature carbonization of cellulose nanocrystals for high performance carbon anode of sodium-ion batteries. Nano Energy, 2017, 33, 37-44.	8.2	159
60	Two-Dimensional Water-Coupled Metallic MoS₂ with Nanochannels for Ultrafast Supercapacitors. Nano Letters, 2017, 17, 1825-1832.	4.5	337
61	Bioinspired Ultrastable Lignin Cathode via Graphene Reconfiguration for Energy Storage. ACS Sustainable Chemistry and Engineering, 2017, 5, 3553-3561.	3.2	51
62	Atomic-Layer-Deposition Functionalized Carbonized Mesoporous Wood Fiber for High Sulfur Loading Lithium Sulfur Batteries. ACS Applied Materials & Interfaces, 2017, 9, 14801-14807.	4.0	77
63	Caterpillar-like graphene confining sulfur by restacking effect for high performance lithium sulfur batteries. Chemical Engineering Journal, 2017, 322, 454-462.	6.6	33
64	Interface Strain Induced Hydrophobic Facet Suppression in Cellulose Nanocomposite Embedded with Highly Oxidized Monolayer Graphene Oxide. Advanced Materials Interfaces, 2017, 4, 1700995.	1.9	15
65	Versatile synthesis of molybdenum sulfide from confined spaces for efficient hydrogen evolution. International Journal of Hydrogen Energy, 2017, 42, 26659-26666.	3.8	11
66	Metallic and highly conducting two-dimensional atomic arrays of sulfur enabled by molybdenum disulfide nanotemplate. Npj Computational Materials, 2017, 3, .	3.5	10
67	Freestanding Metallic 1T MoS₂ with Dual Ion Diffusion Paths as High Rate Anode for Sodiumâ€Ion Batteries. Advanced Functional Materials, 2017, 27, 1702998.	7.8	265
68	Resilient Energy Storage under High-Temperature with In-Situ-Synthesized MnO_x@Graphene as Anode. ACS Applied Materials & Interfaces, 2017, 9, 33896-33905.	4.0	30
69	Celluloseâ€Nanofiberâ€Enabled 3D Printing of a Carbonâ€Nanotube Microfiber Network. Small Methods, 2017, 1, 1700222.	4.6	130
70	Heavy Metal-Free Tannin from Bark for Sustainable Energy Storage. Nano Letters, 2017, 17, 7897-7907.	4.5	46
71	Aligned and stable metallic MoS₂ on plasma-treated mass transfer channels for the hydrogen evolution reaction. Journal of Materials Chemistry A, 2017, 5, 25359-25367.	5.2	31
72	A solid state energy storage device with supercapacitorâ€“battery hybrid design. Journal of Materials Chemistry A, 2017, 5, 15266-15272.	5.2	31

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73	Free-standing porous carbon electrodes derived from wood for high-performance Li-O2 battery applications. Nano Research, 2017, 10, 4318-4326.	5.8	64
74	Ultralight, highly thermally insulating and fire resistant aerogel by encapsulating cellulose nanofibers with two-dimensional MoS₂. Nanoscale, 2017, 9, 11452-11462.	2.8	97
75	Natural Cellulose Nanofibers As Sustainable Enhancers in Construction Cement. PLoS ONE, 2016, 11, e0168422.	1.1	79
76	Nanocarbon Paper: Flexible, High Temperature, Planar Lighting with Large Scale Printable Nanocarbon Paper (Adv. Mater. 23/2016). Advanced Materials, 2016, 28, 4566-4566.	11.1	3
77	Flexible, High Temperature, Planar Lighting with Large Scale Printable Nanocarbon Paper. Advanced Materials, 2016, 28, 4684-4691.	11.1	59
78	Lignin-AuNPs liquid marble for remotely-controllable detection of Pb2+. Scientific Reports, 2016, 6, 38164.	1.6	31
79	Transparent Electrode and Magnetic Permalloy Made from Novel Nanopaper. ACS Applied Materials & Interfaces, 2016, 8, 27081-27090.	4.0	25
80	Wood-Derived Materials for Green Electronics, Biological Devices, and Energy Applications. Chemical Reviews, 2016, 116, 9305-9374.	23.0	1,110
81	Na-Ion Battery Anodes: Materials and Electrochemistry. Accounts of Chemical Research, 2016, 49, 231-240.	7.6	886
82	Pure and stable metallic phase molybdenum disulfide nanosheets for hydrogen evolution reaction. Nature Communications, 2016, 7, 10672.	5.8	721
83	Extreme Light Management in Mesoporous Wood Cellulose Paper for Optoelectronics. ACS Nano, 2016, 10, 1369-1377.	7.3	161
84	Carbonized-leaf Membrane with Anisotropic Surfaces for Sodium-ion Battery. ACS Applied Materials & Interfaces, 2016, 8, 2204-2210.	4.0	146
85	Hybridizing wood cellulose and graphene oxide toward high-performance fibers. NPG Asia Materials, 2015, 7, e150-e150.	3.8	95
86	Nanocellulose as green dispersant for two-dimensional energy materials. Nano Energy, 2015, 13, 346-354.	8.2	270
87	A Thermally Conductive Separator for Stable Li Metal Anodes. Nano Letters, 2015, 15, 6149-6154.	4.5	313
88	Self-Powered Human-Interactive Transparent Nanopaper Systems. ACS Nano, 2015, 9, 7399-7406.	7.3	97
89	Anomalous scaling law of strength and toughness of cellulose nanopaper. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8971-8976.	3.3	296
90	Chemically Crushed Wood Cellulose Fiber towards High-Performance Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2015, 7, 23291-23296.	4.0	123

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91	Nanocellulose-based Translucent Diffuser for Optoelectronic Device Applications with Dramatic Improvement of Light Coupling. ACS Applied Materials & Interfaces, 2015, 7, 26860-26864.	4.0	72
92	A paper-based electrostatic zipper actuator for printable robots. , 2014, , .		18
93	Highly Thermally Conductive Papers with Percolative Layered Boron Nitride Nanosheets. ACS Nano, 2014, 8, 3606-3613.	7.3	425
94	Silver nanowire transparent conducting paper-based electrode with high optical haze. Journal of Materials Chemistry C, 2014, 2, 1248-1254.	2.7	131
95	Transparent paper: fabrications, properties, and device applications. Energy and Environmental Science, 2014, 7, 269-287.	15.6	457
96	Highly Conductive Microfiber of Graphene Oxide Templated Carbonization of Nanofibrillated Cellulose. Advanced Functional Materials, 2014, 24, 7366-7372.	7.8	94
97	Free-Standing Na_{2/3}Fe_{1/2}Mn_{1/2}O₂@Graphene Film for a Sodium-Ion Battery Cathode. ACS Applied Materials & Interfaces, 2014, 6, 4242-4247.	4.0	88
98	Lightweight, conductive hollow fibers from nature as sustainable electrode materials for microbial energy harvesting. Nano Energy, 2014, 10, 268-276.	8.2	63
99	Highly transparent paper with tunable haze for green electronics. Energy and Environmental Science, 2014, 7, 3313-3319.	15.6	123
100	Aqueous Gating of van der Waals Materials on Bilayer Nanopaper. ACS Nano, 2014, 8, 10606-10612.	7.3	31
101	A gravure printed antenna on shape-stable transparent nanopaper. Nanoscale, 2014, 6, 9110.	2.8	85
102	Approaching the limits of transparency and conductivity in graphitic materials through lithium intercalation. Nature Communications, 2014, 5, 4224.	5.8	213
103	Highly transparent and writable wood all-cellulose hybrid nanostructured paper. Journal of Materials Chemistry C, 2013, 1, 6191.	2.7	117
104	Strong transparent magnetic nanopaper prepared by immobilization of Fe3O4 nanoparticles in a nanofibrillated cellulose network. Journal of Materials Chemistry A, 2013, 1, 15278.	5.2	104
105	Highly Transparent and Flexible Nanopaper Transistors. ACS Nano, 2013, 7, 2106-2113.	7.3	401
106	Nanostructured paper for flexible energy and electronic devices. MRS Bulletin, 2013, 38, 320-325.	1.7	199
107	Transparent nanopaper with tailored optical properties. Nanoscale, 2013, 5, 3787.	2.8	223
108	Tin Anode for Sodium-Ion Batteries Using Natural Wood Fiber as a Mechanical Buffer and Electrolyte Reservoir. Nano Letters, 2013, 13, 3093-3100.	4.5	556

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109	Natural Cellulose Fiber as Substrate for Supercapacitor. ACS Nano, 2013, 7, 6037-6046.	7.3	315
110	Biodegradable transparent substrates for flexible organic-light-emitting diodes. Energy and Environmental Science, 2013, 6, 2105.	15.6	281
111	Role of mesoporosity in cellulose fibers for paper-based fast electrochemical energy storage. Journal of Materials Chemistry A, 2013, 1, 8201.	5.2	23
112	Porous Amorphous FePO₄ Nanoparticles Connected by Single-Wall Carbon Nanotubes for Sodium Ion Battery Cathodes. Nano Letters, 2012, 12, 5664-5668.	4.5	215