

Kun Fu

List of Publications by Year in descending order

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117
papers

17,708
citations

19657

61
h-index

23533

111
g-index

117
all docs

117
docs citations

117
times ranked

16036
citing authors

#	ARTICLE	IF	CITATIONS
1	Negating interfacial impedance in garnet-based solid-state Li metal batteries. <i>Nature Materials</i> , 2017, 16, 572-579.	27.5	1,583
2	A review of recent developments in membrane separators for rechargeable lithium-ion batteries. <i>Energy and Environmental Science</i> , 2014, 7, 3857-3886.	30.8	1,152
3	Flexible, solid-state, ion-conducting membrane with 3D garnet nanofiber networks for lithium batteries. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 7094-7099.	7.1	769
4	Garnet-Type Solid-State Electrolytes: Materials, Interfaces, and Batteries. <i>Chemical Reviews</i> , 2020, 120, 4257-4300.	47.7	655
5	Toward garnet electrolyte-based Li metal batteries: An ultrathin, highly effective, artificial solid-state electrolyte/metallic Li interface. <i>Science Advances</i> , 2017, 3, e1601659.	10.3	647
6	Protected Lithium-Metal Anodes in Batteries: From Liquid to Solid. <i>Advanced Materials</i> , 2017, 29, 1701169.	21.0	596
7	Graphene Oxide-Based Electrode Inks for 3D-Printed Lithium-Ion Batteries. <i>Advanced Materials</i> , 2016, 28, 2587-2594.	21.0	590
8	Conformal, Nanoscale ZnO Surface Modification of Garnet-Based Solid-State Electrolyte for Lithium Metal Anodes. <i>Nano Letters</i> , 2017, 17, 565-571.	9.1	556
9	Transition from Superlithiophobicity to Superlithiophilicity of Garnet Solid-State Electrolyte. <i>Journal of the American Chemical Society</i> , 2016, 138, 12258-12262.	13.7	548
10	Reducing Interfacial Resistance between Garnet-Structured Solid-State Electrolyte and Li-Metal Anode by a Germanium Layer. <i>Advanced Materials</i> , 2017, 29, 1606042.	21.0	512
11	Three-dimensional bilayer garnet solid electrolyte based high energy density lithium metal-sulfur batteries. <i>Energy and Environmental Science</i> , 2017, 10, 1568-1575.	30.8	499
12	Organic electrode for non-aqueous potassium-ion batteries. <i>Nano Energy</i> , 2015, 18, 205-211.	16.0	397
13	Mesoporous, Three-Dimensional Wood Membrane Decorated with Nanoparticles for Highly Efficient Water Treatment. <i>ACS Nano</i> , 2017, 11, 4275-4282.	14.6	392
14	Progress in 3D Printing of Carbon Materials for Energy-Related Applications. <i>Advanced Materials</i> , 2017, 29, 1603486.	21.0	364
15	A Thermally Conductive Separator for Stable Li Metal Anodes. <i>Nano Letters</i> , 2015, 15, 6149-6154.	9.1	313
16	Transient Electronics: Materials and Devices. <i>Chemistry of Materials</i> , 2016, 28, 3527-3539.	6.7	284
17	3D-Printed All-Fiber Li-Ion Battery toward Wearable Energy Storage. <i>Advanced Functional Materials</i> , 2017, 27, 1703140.	14.9	270
18	Three-Dimensional Printed Thermal Regulation Textiles. <i>ACS Nano</i> , 2017, 11, 11513-11520.	14.6	261

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19	Nitrogen-doped carbon nanofibers derived from polyacrylonitrile for use as anode material in sodium-ion batteries. <i>Carbon</i> , 2015, 94, 189-195.	10.3	260
20	Garnet Solid Electrolyte Protected Li-Metal Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 18809-18815.	8.0	247
21	Aligned Carbon Nanotube/Silicon Sheets: A Novel Nano-architecture for Flexible Lithium Ion Battery Electrodes. <i>Advanced Materials</i> , 2013, 25, 5109-5114.	21.0	232
22	Transient Behavior of the Metal Interface in Lithium Metal/Garnet Batteries. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 14942-14947.	13.8	227
23	Flexible, Scalable, and Highly Conductive Garnet/Polymer Solid Electrolyte Templated by Bacterial Cellulose. <i>Advanced Energy Materials</i> , 2018, 8, 1703474.	19.5	189
24	An Electron/Ion Dual-Conductive Alloy Framework for High-Rate and High-Capacity Solid-State Lithium-Metal Batteries. <i>Advanced Materials</i> , 2019, 31, e1804815.	21.0	188
25	Reduced Graphene Oxide Films with Ultrahigh Conductivity as Li-Ion Battery Current Collectors. <i>Nano Letters</i> , 2016, 16, 3616-3623.	9.1	187
26	Super-Strong, Super-Stiff Macrofibers with Aligned, Long Bacterial Cellulose Nanofibers. <i>Advanced Materials</i> , 2017, 29, 1702498.	21.0	185
27	Nanoparticle-on-nanofiber hybrid membrane separators for lithium-ion batteries via combining electrospraying and electrospinning techniques. <i>Journal of Membrane Science</i> , 2014, 456, 57-65.	8.2	180
28	Flexible Batteries: From Mechanics to Devices. <i>ACS Energy Letters</i> , 2016, 1, 1065-1079.	17.4	170
29	Three-Dimensional Printable High-Temperature and High-Rate Heaters. <i>ACS Nano</i> , 2016, 10, 5272-5279.	14.6	161
30	Parameter study and characterization for polyacrylonitrile nanofibers fabricated via centrifugal spinning process. <i>European Polymer Journal</i> , 2013, 49, 3834-3845.	5.4	157
31	Understanding glass fiber membrane used as a novel separator for lithium/sulfur batteries. <i>Journal of Membrane Science</i> , 2016, 504, 89-96.	8.2	152
32	Enabling High-Areal-Capacity Lithium/Sulfur Batteries: Designing Anisotropic and Low-Tortuosity Porous Architectures. <i>ACS Nano</i> , 2017, 11, 4801-4807.	14.6	151
33	Carbon-Coated Si Nanoparticles Dispersed in Carbon Nanotube Networks As Anode Material for Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 21-25.	8.0	148
34	Carbonized-leaf Membrane with Anisotropic Surfaces for Sodium-ion Battery. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 2204-2210.	8.0	146
35	3D printing of polymer composites: Materials, processes, and applications. <i>Matter</i> , 2022, 5, 43-76.	10.0	136
36	Lithium-ion conductive ceramic textile: A new architecture for flexible solid-state lithium metal batteries. <i>Materials Today</i> , 2018, 21, 594-601.	14.2	134

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37	Celluloseâ€Nanofiberâ€Enabled 3D Printing of a Carbonâ€Nanotube Microfiber Network. <i>Small Methods</i> , 2017, 1, 1700222.	8.6	130
38	Effect of CVD carbon coatings on Si@CNF composite as anode for lithium-ion batteries. <i>Nano Energy</i> , 2013, 2, 976-986.	16.0	129
39	Chemically Crushed Wood Cellulose Fiber towards High-Performance Sodium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 23291-23296.	8.0	123
40	Ultra-fast self-assembly and stabilization of reactive nanoparticles in reduced graphene oxide films. <i>Nature Communications</i> , 2016, 7, 12332.	12.8	123
41	From Wood to Textiles: Topâ€Down Assembly of Aligned Cellulose Nanofibers. <i>Advanced Materials</i> , 2018, 30, e1801347.	21.0	121
42	3D lithium metal anodes hosted in asymmetric garnet frameworks toward high energy density batteries. <i>Energy Storage Materials</i> , 2018, 14, 376-382.	18.0	114
43	All-in-one lithium-sulfur battery enabled by a porous-dense-porous garnet architecture. <i>Energy Storage Materials</i> , 2018, 15, 458-464.	18.0	108
44	Light management in plasticâ€paper hybrid substrate towards high-performance optoelectronics. <i>Energy and Environmental Science</i> , 2016, 9, 2278-2285.	30.8	103
45	Carbon-enhanced electrodeposited SnO ₂ /carbon nanofiber composites as anode for lithium-ion batteries. <i>Journal of Power Sources</i> , 2014, 264, 240-247.	7.8	96
46	Textile Inspired Lithiumâ€Oxygen Battery Cathode with Decoupled Oxygen and Electrolyte Pathways. <i>Advanced Materials</i> , 2018, 30, 1704907.	21.0	92
47	A one-pot biosynthesis of reduced graphene oxide (RGO)/bacterial cellulose (BC) nanocomposites. <i>Green Chemistry</i> , 2014, 16, 3195-3201.	9.0	90
48	Rapid Thermal Annealing of Cathode-Garnet Interface toward High-Temperature Solid State Batteries. <i>Nano Letters</i> , 2017, 17, 4917-4923.	9.1	89
49	Carbon Welding by Ultrafast Joule Heating. <i>Nano Letters</i> , 2016, 16, 7282-7289.	9.1	88
50	Copper-doped Li ₄ Ti ₅ O ₁₂ /carbon nanofiber composites as anode for high-performance sodium-ion batteries. <i>Journal of Power Sources</i> , 2014, 272, 860-865.	7.8	86
51	Synergistic protective effect of a BN-carbon separator for highly stable lithium sulfur batteries. <i>NPG Asia Materials</i> , 2017, 9, e375-e375.	7.9	85
52	Si/C composite nanofibers with stable electric conductive network for use as durable lithium-ion battery anode. <i>Nano Energy</i> , 2013, 2, 361-367.	16.0	84
53	3D printingâ€enabled advanced electrode architecture design. , 2021, 3, 424-439.		82
54	Thermally conductive, dielectric PCMâ€boron nitride nanosheet composites for efficient electronic system thermal management. <i>Nanoscale</i> , 2016, 8, 19326-19333.	5.6	80

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55	Transient Rechargeable Batteries Triggered by Cascade Reactions. <i>Nano Letters</i> , 2015, 15, 4664-4671.	9.1	77
56	Sulfur gradient-distributed CNF composite: a self-inhibiting cathode for binder-free lithium-sulfur batteries. <i>Chemical Communications</i> , 2014, 50, 10277-10280.	4.1	75
57	Stabilizing the Garnet Solid-Electrolyte/Polysulfide Interface in Li-S Batteries. <i>Chemistry of Materials</i> , 2017, 29, 8037-8041.	6.7	73
58	Centrifugal spinning: A novel approach to fabricate porous carbon fibers as binder-free electrodes for electric double-layer capacitors. <i>Journal of Power Sources</i> , 2015, 273, 502-510.	7.8	72
59	Flexible Solid-State Electrolyte with Aligned Nanostructures Derived from Wood. , 2019, 1, 354-361.		72
60	Flexible, Mechanically Robust, Solid-State Electrolyte Membrane with Conducting Oxide-Enhanced 3D Nanofiber Networks for Lithium Batteries. <i>Nano Letters</i> , 2021, 21, 7070-7078.	9.1	72
61	Use of a tin antimony alloy-filled porous carbon nanofiber composite as an anode in sodium-ion batteries. <i>RSC Advances</i> , 2015, 5, 30793-30800.	3.6	70
62	Flexible nanocellulose enhanced Li ⁺ conducting membrane for solid polymer electrolyte. <i>Energy Storage Materials</i> , 2020, 28, 293-299.	18.0	70
63	Rapid, in Situ Synthesis of High Capacity Battery Anodes through High Temperature Radiation-Based Thermal Shock. <i>Nano Letters</i> , 2016, 16, 5553-5558.	9.1	67
64	Dynamic Capillary-Driven Additive Manufacturing of Continuous Carbon Fiber Composite. <i>Matter</i> , 2020, 2, 1594-1604.	10.0	64
65	Low Tortuous, Highly Conductive, and High-Areal-Capacity Battery Electrodes Enabled by Through-thickness Aligned Carbon Fiber Framework. <i>Nano Letters</i> , 2020, 20, 5504-5512.	9.1	64
66	Chamber-confined silicon-carbon nanofiber composites for prolonged cycling life of Li-ion batteries. <i>Nanoscale</i> , 2014, 6, 7489-7495.	5.6	60
67	Flexible, High Temperature, Planar Lighting with Large Scale Printable Nanocarbon Paper. <i>Advanced Materials</i> , 2016, 28, 4684-4691.	21.0	59
68	A simple method to encapsulate SnSb nanoparticles into hollow carbon nanofibers with superior lithium-ion storage capability. <i>Journal of Materials Chemistry A</i> , 2013, 1, 13807.	10.3	56
69	Designing Textile Architectures for High Energy-Efficiency Human Body Sweat- and Cooling-Management. <i>Advanced Fiber Materials</i> , 2019, 1, 61-70.	16.1	56
70	Hydroxylated carbon nanotube enhanced sulfur cathodes for improved electrochemical performance of lithium-sulfur batteries. <i>Chemical Communications</i> , 2015, 51, 13682-13685.	4.1	55
71	A Solution-Processed High-Temperature, Flexible, Thin-Film Actuator. <i>Advanced Materials</i> , 2016, 28, 8618-8624.	21.0	53
72	Epitaxial Welding of Carbon Nanotube Networks for Aqueous Battery Current Collectors. <i>ACS Nano</i> , 2018, 12, 5266-5273.	14.6	51

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73	Nanosized Ge@CNF, Ge@C@CNF and Ge@CNF@C composites via chemical vapour deposition method for use in advanced lithium-ion batteries. <i>Journal of Power Sources</i> , 2014, 253, 366-372.	7.8	50
74	Remotely and Sequentially Controlled Actuation of Electroactivated Carbon Nanotube/Shape Memory Polymer Composites. <i>Advanced Materials Technologies</i> , 2019, 4, 1900600.	5.8	50
75	Nanomanufacturing of graphene nanosheets through nano-hole opening and closing. <i>Materials Today</i> , 2019, 24, 26-32.	14.2	48
76	All-Component Transient Lithium-Ion Batteries. <i>Advanced Energy Materials</i> , 2016, 6, 1502496.	19.5	47
77	Flash-induced reduced graphene oxide as a Sn anode host for high performance sodium ion batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 18306-18313.	10.3	47
78	All-textile sensors for boxing punch force and velocity detection. <i>Nano Energy</i> , 2022, 97, 107114.	16.0	45
79	Comparison of Si/C, Ge/C and Sn/C composite nanofiber anodes used in advanced lithium-ion batteries. <i>Solid State Ionics</i> , 2014, 254, 17-26.	2.7	44
80	One-dimensional SiOC/C composite nanofibers as binder-free anodes for lithium-ion batteries. <i>Journal of Power Sources</i> , 2014, 254, 33-38.	7.8	44
81	Garnet ceramic fabric-reinforced flexible composite solid electrolyte derived from silk template for safe and long-term stable All-Solid-State lithium metal batteries. <i>Energy Storage Materials</i> , 2022, 47, 279-287.	18.0	43
82	Carbon-Confined PVA-Derived Silicon/Silica/Carbon Nanofiber Composites as Anode for Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2014, 161, A2197-A2203.	2.9	42
83	Encapsulation of S/SWNT with PANI Web for Enhanced Rate and Cycle Performance in Lithium Sulfur Batteries. <i>Scientific Reports</i> , 2015, 5, 8946.	3.3	42
84	Electric Field-Induced Assembly and Alignment of Silver-Coated Cellulose for Polymer Composite Films with Enhanced Dielectric Permittivity and Anisotropic Light Transmission. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 24242-24249.	8.0	41
85	High-Entropy alloy stabilized and activated Pt clusters for highly efficient electrocatalysis. <i>SusMat</i> , 2022, 2, 186-196.	14.9	41
86	Research progress of low dielectric constant polymer materials. <i>Journal of Polymer Engineering</i> , 2022, 42, 677-687.	1.4	37
87	Centrifugally-spun tin-containing carbon nanofibers as anode material for lithium-ion batteries. <i>Journal of Materials Science</i> , 2015, 50, 1094-1102.	3.7	34
88	<i>In Situ</i> High Temperature Synthesis of Single-Component Metallic Nanoparticles. <i>ACS Central Science</i> , 2017, 3, 294-301.	11.3	34
89	A solid state energy storage device with supercapacitor-battery hybrid design. <i>Journal of Materials Chemistry A</i> , 2017, 5, 15266-15272.	10.3	31
90	Universal, <i>In Situ</i> Transformation of Bulky Compounds into Nanoscale Catalysts by High-Temperature Pulse. <i>Nano Letters</i> , 2017, 17, 5817-5822.	9.1	29

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91	Ultrafast, Controllable Synthesis of Sub-Nano Metallic Clusters through Defect Engineering. ACS Applied Materials & Interfaces, 2019, 11, 29773-29779.	8.0	28
92	Inserting insulating barriers into conductive particle channels: A new paradigm for fabricating polymer composites with high dielectric permittivity and low dielectric loss. Composites Science and Technology, 2021, 216, 109070.	7.8	27
93	Non-critical phase matching of $Gd_xY_{1-x}Ca_4O(BO_3)_3(Gd_xY_{1-x}COB)$ crystal. Solid State Communications, 2001, 120, 397-400.	1.9	23
94	Design of High Capacity Dissoluble Electrodes for All Transient Batteries. Advanced Functional Materials, 2017, 27, 1605724.	14.9	21
95	Inverted battery design as ion generator for interfacing with biosystems. Nature Communications, 2017, 8, 15609.	12.8	21
96	Effect of Microstructure on the Resilience of Silicon Carbide to Palladium Attack. Journal of the American Ceramic Society, 2010, 93, 4135-4141.	3.8	20
97	SiO_2 -confined silicon/carbon nanofiber composites as an anode for lithium-ion batteries. RSC Advances, 2015, 5, 34744-34751.	3.6	20
98	Cellulose nanocrystal enhanced, high dielectric 3D printing composite resin for energy applications. Composites Science and Technology, 2022, 227, 109601.	7.8	19
99	Necklace-Like Silicon Carbide and Carbon Nanocomposites Formed by Steady Joule Heating. Small Methods, 2018, 2, 1700371.	8.6	17
100	Hybrid Carbon Nanotube Fabrics with Sacrificial Nanofibers for Flexible High Performance Lithium-Ion Battery Anodes. Journal of the Electrochemical Society, 2019, 166, A473-A479.	2.9	16
101	Scalable Synthesis of Li-rich 3D Architected Li Metal Anode via Direct Lithium-Fluoropolymer Pyrolysis to Enable Fast Li Cycling. Energy and Environmental Materials, 2021, 4, 213-221.	12.8	16
102	Rapid electrothermal-triggered flooded thermoset curing for scalable carbon/polymer composite manufacturing. Composites Science and Technology, 2020, 200, 108409.	7.8	14
103	Polarized Angular Dependent Light Scattering Properties of Bare and PEGylated Gold Nanoshells. Current Nanoscience, 2007, 3, 167-170.	1.2	14
104	Rapid Nanowelding of Carbon Coatings onto Glass Fibers by Electrothermal Shock. ACS Applied Materials & Interfaces, 2020, 12, 37722-37731.	8.0	13
105	Transient Behavior of the Metal Interface in Lithium Metal-Garnet Batteries. Angewandte Chemie, 2017, 129, 15138-15143.	2.0	12
106	Fabrication of high dielectric permittivity polymer composites by architecting aligned micro-enhanced-zones of ultralow content graphene using electric fields. Materials Today Communications, 2019, 21, 100649.	1.9	12
107	Cut-and-stack nanofiber paper toward fast transient energy storage. Inorganic Chemistry Frontiers, 2016, 3, 681-688.	6.0	10
108	Influence of ethylene glycol pretreatment on effectiveness of atmospheric pressure plasma treatment of polyethylene fibers. Applied Surface Science, 2010, 256, 3253-3258.	6.1	8

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109	Comparing the structures and sodium storage properties of centrifugally spun SnO ₂ microfiber anodes with/without chemical vapor deposition. <i>Journal of Materials Science</i> , 2016, 51, 4549-4558.	3.7	8
110	One-Step, Catalyst-Free, Scalable in Situ Synthesis of Single-Crystal Aluminum Nanowires in Confined Graphene Space. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 6009-6014.	8.0	7
111	Nanocarbon Paper: Flexible, High Temperature, Planar Lighting with Large Scale Printable Nanocarbon Paper (<i>Adv. Mater.</i> 23/2016). <i>Advanced Materials</i> , 2016, 28, 4566-4566.	21.0	3
112	High-performance Sn/Carbon Composite Anodes Derived from Sn(II) Acetate/Polyacrylonitrile Precursors by Electrospinning Technology. <i>Current Organic Chemistry</i> , 2013, 17, 1448-1454.	1.6	2
113	Core-shell hybrid pre-preg tow for lightweight composite truss. <i>Composites Part B: Engineering</i> , 2021, 223, 109093.	12.0	1
114	Co ₃ O ₄ /Carbon Composite Nanofibers for Use as Anode Material in Advanced Lithium-Ion Batteries. <i>ACS Symposium Series</i> , 2013, , 55-66.	0.5	0
115	Additive Manufacturing of Carbon Nanotube-Based Three-Dimensional Multi-Scale Architectures. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 704-704.	0.0	0
116	Low-Tortuosity, Highly Conductive, Vertically Aligned, Ultra-Thick Composite Electrode Design for Batteries. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 2725-2725.	0.0	0
117	(Invited) Advanced Battery Electrode Architectures Enabled By Additive Manufacturing Techniques. <i>ECS Meeting Abstracts</i> , 2020, MA2020-02, 3692-3692.	0.0	0