

# Bin Liu

## List of Publications by Year in descending order

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61  
papers

11,883  
citations

53794

45  
h-index

138484

58  
g-index

64  
all docs

64  
docs citations

64  
times ranked

15691  
citing authors

#	ARTICLE	IF	CITATIONS
1	Growth of Oriented Single-Crystalline Rutile TiO <sub>2</sub> Nanorods on Transparent Conducting Substrates for Dye-Sensitized Solar Cells. <i>Journal of the American Chemical Society</i> , 2009, 131, 3985-3990.	13.7	2,243
2	Flexible Energy Storage Devices: Design Consideration and Recent Progress. <i>Advanced Materials</i> , 2014, 26, 4763-4782.	21.0	1,153
3	Advancing Lithium Metal Batteries. <i>Joule</i> , 2018, 2, 833-845.	24.0	1,052
4	Hierarchical Three-Dimensional ZnCo <sub>2</sub> O <sub>4</sub> Nanowire Arrays/Carbon Cloth Anodes for a Novel Class of High-Performance Flexible Lithium-Ion Batteries. <i>Nano Letters</i> , 2012, 12, 3005-3011.	9.1	967
5	GaS and GaSe Ultrathin Layer Transistors. <i>Advanced Materials</i> , 2012, 24, 3549-3554.	21.0	580
6	Fiber-Based Flexible All-Solid-State Asymmetric Supercapacitors for Integrated Photodetecting System. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 1849-1853.	13.8	387
7	New Energy Storage Option: Toward ZnCo <sub>2</sub> O <sub>4</sub> Nanorods/Nickel Foam Architectures for High-Performance Supercapacitors. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 10011-10017.	8.0	362
8	NiCo <sub>2</sub> O <sub>4</sub> nanowire arrays supported on Ni foam for high-performance flexible all-solid-state supercapacitors. <i>Journal of Materials Chemistry A</i> , 2013, 1, 2468.	10.3	344
9	Morphology evolution of urchin-like NiCo <sub>2</sub> O <sub>4</sub> nanostructures and their applications as pseudocapacitors and photoelectrochemical cells. <i>Journal of Materials Chemistry</i> , 2012, 22, 21647.	6.7	310
10	High Voltage Operation of Ni-Rich NMC Cathodes Enabled by Stable Electrode/Electrolyte Interphases. <i>Advanced Energy Materials</i> , 2018, 8, 1800297.	19.5	298
11	Rechargeable Mg-Ion Batteries Based on WSe <sub>2</sub> Nanowire Cathodes. <i>ACS Nano</i> , 2013, 7, 8051-8058.	14.6	244
12	Three-Dimensional Hierarchical GeSe <sub>2</sub> Nanostructures for High Performance Flexible All-Solid-State Supercapacitors. <i>Advanced Materials</i> , 2013, 25, 1479-1486.	21.0	236
13	High-Performance Organic-Inorganic Hybrid Photodetectors Based on P3HT:CdSe Nanowire Heterojunctions on Rigid and Flexible Substrates. <i>Advanced Functional Materials</i> , 2013, 23, 1202-1209.	14.9	213
14	Transferable and Flexible Nanorod-Assembled TiO <sub>2</sub> Cloths for Dye-Sensitized Solar Cells, Photodetectors, and Photocatalysts. <i>ACS Nano</i> , 2011, 5, 8412-8419.	14.6	209
15	Revealing the reaction mechanisms of Li-O <sub>2</sub> batteries using environmental transmission electron microscopy. <i>Nature Nanotechnology</i> , 2017, 12, 535-539.	31.5	160
16	Confronting the Challenges in Lithium Anodes for Lithium Metal Batteries. <i>Advanced Science</i> , 2021, 8, e2101111.	11.2	157
17	Core-Shell CuCo <sub>2</sub> O <sub>4</sub> @MnO <sub>2</sub> Nanowires on Carbon Fabrics as High-Performance Materials for Flexible, All-Solid-State, Electrochemical Capacitors. <i>ChemElectroChem</i> , 2014, 1, 559-564.	3.4	149
18	Hierarchical silicon nanowires-carbon textiles matrix as a binder-free anode for high-performance advanced lithium-ion batteries. <i>Scientific Reports</i> , 2013, 3, 1622.	3.3	136

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19	TiO <sub>2</sub> modified FeS Nanostructures with Enhanced Electrochemical Performance for Lithium-Ion Batteries. Scientific Reports, 2013, 3, 2007.	3.3	133
20	Flexible, Planar-Integrated, All-Solid-State Fiber Supercapacitors with an Enhanced Distributed-Capacitance Effect. Small, 2013, 9, 1998-2004.	10.0	133
21	Nanorod-assembled Co <sub>3</sub> O <sub>4</sub> hexapods with enhanced electrochemical performance for lithium-ion batteries. Journal of Materials Chemistry, 2012, 22, 23541.	6.7	132
22	Hierarchical MnCo <sub>2</sub> O <sub>4</sub> nanosheet arrays/carbon cloths as integrated anodes for lithium-ion batteries with improved performance. Nanoscale, 2014, 6, 8858-8864.	5.6	121
23	Enhanced performance of supercapacitors with ultrathin mesoporous NiMoO <sub>4</sub> nanosheets. Electrochimica Acta, 2014, 125, 294-301.	5.2	116
24	Advanced rechargeable lithium-ion batteries based on bendable ZnCo <sub>2</sub> O <sub>4</sub> -urchins-on-carbon-fibers electrodes. Nano Research, 2013, 6, 525-534.	10.4	109
25	SnO <sub>2</sub> @TiO <sub>2</sub> Heterojunction Nanostructures for Lithium-Ion Batteries and Self-Powered UV Photodetectors with Improved Performances. ChemElectroChem, 2014, 1, 108-115.	3.4	104
26	Enhanced Cycling Stability of Rechargeable Li <sup>+</sup> Batteries Using High-Concentration Electrolytes. Advanced Functional Materials, 2016, 26, 605-613.	14.9	104
27	Complete Decomposition of Li <sub>2</sub> CO <sub>3</sub> in Li <sup>+</sup> Batteries Using Ir/B <sub>4</sub> C as Noncarbon-Based Oxygen Electrode. Nano Letters, 2017, 17, 1417-1424.	9.1	104
28	Ultralong-life and high-rate web-like Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> anode for high-performance flexible lithium-ion batteries. Nano Research, 2014, 7, 1073-1082.	10.4	100
29	Stabilization of Li Metal Anode in DMSO-Based Electrolytes via Optimization of Salt-Solvent Coordination for Li <sup>+</sup> Batteries. Advanced Energy Materials, 2017, 7, 1602605.	19.5	99
30	SnO <sub>2</sub> -microtube-assembled cloth for fully flexible self-powered photodetector nanosystems. Nanoscale, 2013, 5, 7831.	5.6	91
31	Facile synthesis and electrochemical properties of CoMn <sub>2</sub> O <sub>4</sub> anodes for high capacity lithium-ion batteries. Journal of Materials Chemistry A, 2013, 1, 2139-2143.	10.3	88
32	Spray-Painted Binder-Free SnSe Electrodes for High-Performance Energy-Storage Devices. ChemSusChem, 2014, 7, 308-313.	6.8	81
33	Single-Crystalline p-Type Zn <sub>3</sub> As <sub>2</sub> Nanowires for Field-Effect Transistors and Visible-Light Photodetectors on Rigid and Flexible Substrates. Advanced Functional Materials, 2013, 23, 2681-2690.	14.9	79
34	ZnO-nanoparticle-assembled cloth for flexible photodetectors and recyclable photocatalysts. Journal of Materials Chemistry, 2012, 22, 9379.	6.7	75
35	Pursuing two-dimensional nanomaterials for flexible lithium-ion batteries. Nano Today, 2016, 11, 82-97.	11.9	73
36	Nickel-cobalt selenide as high-performance and long-life electrode material for supercapacitor. Journal of Colloid and Interface Science, 2019, 540, 306-314.	9.4	73

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37	Multilayer TiO <sub>2</sub> nanorod cloth/nanorod array electrode for dye-sensitized solar cells and self-powered UV detectors. <i>Nanoscale</i> , 2012, 4, 3350.	5.6	66
38	B <sub>4</sub> C as a stable non-carbon-based oxygen electrode material for lithium-oxygen batteries. <i>Nano Energy</i> , 2017, 33, 195-204.	16.0	65
39	Electrochemically Formed Ultrafine Metal Oxide Nanocatalysts for High-Performance Lithium-Oxygen Batteries. <i>Nano Letters</i> , 2016, 16, 4932-4939.	9.1	62
40	Constructing optimized wire electrodes for fiber supercapacitors. <i>Nano Energy</i> , 2014, 10, 99-107.	16.0	59
41	Single-crystalline metal germanate nanowire-carbon textiles as binder-free, self-supported anodes for high-performance lithium storage. <i>Nanoscale</i> , 2013, 5, 10291.	5.6	53
42	Highly Reversible Lithium Storage in Hierarchical Ca <sub>2</sub> Ge <sub>7</sub> O <sub>16</sub> Nanowire Arrays/Carbon Textile Anodes. <i>Chemistry - A European Journal</i> , 2013, 19, 8650-8656.	3.3	50
43	High-performance photodetectors, photocatalysts, and gas sensors based on polyol reflux synthesized porous ZnO nanosheets. <i>CrystEngComm</i> , 2012, 14, 4582.	2.6	46
44	Phase-controlled synthesis of 3D flower-like Ni(OH) <sub>2</sub> architectures and their applications in water treatment. <i>CrystEngComm</i> , 2012, 14, 3063.	2.6	45
45	Selective synthesis of Sb <sub>2</sub> S <sub>3</sub> nanoneedles and nanoflowers for high performance rigid and flexible photodetectors. <i>Optics Express</i> , 2013, 21, 13639.	3.4	45
46	Constructing Robust Electrode/Electrolyte Interphases to Enable Wide Temperature Applications of Lithium-Ion Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 21496-21505.	8.0	44
47	Enhanced Cyclability of Lithium-Oxygen Batteries with Electrodes Protected by Surface Films Induced via In Situ Electrochemical Process. <i>Advanced Energy Materials</i> , 2018, 8, 1702340.	19.5	38
48	In <sub>2</sub> S <sub>3</sub> -Grown ZnCo <sub>2</sub> O <sub>4</sub> on Single-Walled Carbon Nanotubes as Air Electrode Materials for Rechargeable Lithium-Oxygen Batteries. <i>ChemSusChem</i> , 2015, 8, 3697-3703.	6.8	34
49	Shape evolution and applications in water purification: the case of CVD-grown Zn <sub>2</sub> SiO <sub>4</sub> straw-bundles. <i>Journal of Materials Chemistry</i> , 2012, 22, 5330.	6.7	33
50	Temperature Dependence of the Oxygen Reduction Mechanism in Nonaqueous Li <sub>2</sub> O <sub>2</sub> Batteries. <i>ACS Energy Letters</i> , 2017, 2, 2525-2530.	17.4	30
51	Memristor-Integrated Voltage-Stabilizing Supercapacitor System. <i>Advanced Materials</i> , 2014, 26, 4999-5004.	21.0	26
52	Si@SiO <sub>2</sub> nanowires/carbon textiles cable-type anodes for high-capacity reversible lithium-ion batteries. <i>RSC Advances</i> , 2014, 4, 18391.	3.6	11
53	Efficient Photocatalytic Reduction Approach for Synthesizing Chemically Bonded N-Doped TiO <sub>2</sub> /Reduced Graphene Oxide Hybrid as a Freestanding Electrode for High-Performance Lithium Storage. <i>ACS Applied Energy Materials</i> , 2018, 1, 4186-4195.	5.1	11
54	Tin Microspheres Grown on Carbon Cloth as Binder-Free Integrated Anode for High Capacity Lithium Storage. <i>Energy Technology</i> , 2014, 2, 370-375.	3.8	10

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55	Highly Stable Oxygen Electrodes Enabled by Catalyst Redistribution through an In Situ Electrochemical Method. <i>Advanced Energy Materials</i> , 2019, 9, 1803598.	19.5	6
56	Optimised synthesis of close packed ZnO cloth and its applications in Li-ion batteries and dye-sensitized solar cells. <i>Frontiers of Optoelectronics</i> , 2015, 8, 220-228.	3.7	1
57	A Stable Carbon-Free Cathode for Rechargeable Lithium-Oxygen Battery with Long Cycle Performance. <i>ECS Meeting Abstracts</i> , 2016, , .	0.0	0
58	Stabilization of Li Metal Anode in DMSO-Based Electrolytes Via Optimization of Salt-Solvent Coordination for Li-O <sub>2</sub> Batteries. <i>ECS Meeting Abstracts</i> , 2017, , .	0.0	0
59	Rechargeable Lithium Metal Batteries. , 2019, , 147-203.		0
60	(Invited) Electrolytes for Wide-Temperature Application Range of Lithium Ion Batteries. <i>ECS Meeting Abstracts</i> , 2019, , .	0.0	0
61	Hybrid Polymer Electrolytes for Lithium Metal Batteries. <i>ECS Meeting Abstracts</i> , 2019, , .	0.0	0