Qiao-Bao Zhang

List of Publications by Year
in descending order

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		39113	48101
108	9,022	52	92
papers	citations	h-index	g-index

109	109	109	8948
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Lithiophilic N-doped carbon bowls induced Li deposition in layered graphene film for advanced lithium metal batteries. Nano Research, 2022, 15, 352-360.	5.8	93
2	Polymerâ€/Ceramicâ€based Dielectric Composites for Energy Storage and Conversion. Energy and Environmental Materials, 2022, 5, 486-514.	7.3	66
3	Interfacial nitrogen engineering of robust silicon/MXene anode toward high energy solid-state lithium-ion batteries. Journal of Energy Chemistry, 2022, 67, 727-735.	7.1	46
4	Scalable Synthesis of Pore-Rich Si/C@C Coreâ€“Shell-Structured Microspheres for Practical Long-Life Lithium-Ion Battery Anodes. ACS Applied Materials & Interfaces, 2022, 14, 10308-10318.	4.0	73
5	Boosting the potassium-ion storage performance enabled by engineering of hierarchical MoSSe nanosheets modified with carbon on porous carbon sphere. Science Bulletin, 2022, 67, 933-945.	4.3	96
6	Liquid-phase sintering enabling mixed ionic-electronic interphases and free-standing composite cathode architecture toward high energy solid-state battery. Nano Research, 2022, 15, 6156-6167.	5.8	10
7	Bio-inspired synthesis of transition-metal oxide hybrid ultrathin nanosheets for enhancing the cycling stability in lithium-ion batteries. Nano Research, 2022, 15, 5064-5071.	5.8	8
8	Atomic mechanisms of hexagonal close-packed Ni nanocrystallization revealed by in situ liquid cell transmission electron microscopy. Nano Research, 2022, 15, 6772-6778.	5.8	2
9	B-doped and La4NiLiO8-coated Ni-rich cathode with enhanced structural and interfacial stability for lithium-ion batteries. Journal of Energy Chemistry, 2022, 71, 588-594.	7.1	106
10	Antiâ€Aggregation of Nanosized CoS₂ for Stable Kâ€Ion Storage: Insights into Aggregationâ€Induced Electrode Failures. Advanced Energy Materials, 2022, 12, .	10.2	21
11	Shining light on transition metal tungstate-based nanomaterials for electrochemical applications: Structures, progress, and perspectives. Nano Research, 2022, 15, 6924-6960.	5.8	15
12	Emerging Organic Surface Chemistry for Si Anodes in Lithiumâ€Ion Batteries: Advances, Prospects, and Beyond. Advanced Energy Materials, 2022, 12, .	10.2	60
13	Synergistic Engineering of Heterointerface and Architecture in Newâ€Type ZnS/Sn Heterostructures In Situ Encapsulated in Nitrogenâ€Doped Carbon Toward Highâ€Efficient Lithiumâ€Ion Storage. Advanced Functional Materials, 2022, 32, .	7.8	84
14	Unveiling the Dynamic Oxidative Etching Mechanisms of Nanostructured Metals/Metallic Oxides in Liquid Media Through In Situ Transmission Electron Microscopy. Advanced Functional Materials, 2022, 32, .	7.8	7
15	Synergistic coupling of amorphous carbon and graphitic domains toward high-rate and long-life K+ storage. Journal of Energy Chemistry, 2022, 73, 533-541.	7.1	15
16	Electrolyte additive engineering for aqueous Zn ion batteries. Energy Storage Materials, 2022, 51, 733-755.	9.5	179
17	N-doped porous carbon nanofibers sheathed pumpkin-like Si/C composites as free-standing anodes for lithium-ion batteries. Journal of Energy Chemistry, 2021, 54, 727-735.	7.1	140
18	Understanding all solid-state lithium batteries through in situ transmission electron microscopy. Materials Today, 2021, 42, 137-161.	8.3	64

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19	Designing and Understanding the Superior Potassium Storage Performance of Nitrogen/Phosphorus Coâ€Doped Hollow Porous Bowlâ€Like Carbon Anodes. Advanced Functional Materials, 2021, 31, .	7.8	142
20	Template-free fabrication of MoP nanoparticles encapsulated in N-doped hollow carbon spheres for efficient alkaline hydrogen evolution. Chemical Engineering Journal, 2021, 416, 127677.	6.6	56
21	Solvothermal preparation and characterization of ordered-mesoporous ZrO2/TiO2 composites for photocatalytic degradation of organic dyes. Ceramics International, 2021, 47, 7632-7641.	2.3	22
22	Bulk boron doping and surface carbon coating enabling fast-charging and stable Si anodes: from thin film to thick Si electrodes. Journal of Materials Chemistry A, 2021, 9, 3628-3636.	5.2	23
23	Quantifying the reaction mechanisms of a high-capacity CuP₂/C composite anode for potassium ion batteries. Journal of Materials Chemistry A, 2021, 9, 6274-6283.	5.2	19
24	Reversible potassium storage in ultrafine CF : A superior cathode material for potassium batteries and its mechanism. Journal of Energy Chemistry, 2021, 53, 347-353.	7.1	16
25	Leaf-inspired design of mesoporous Sb2S3/N-doped Ti3C2Tx composite towards fast sodium storage. Science China Chemistry, 2021, 64, 964-973.	4.2	50
26	A Selfâ€Healing Volume Variation Threeâ€Dimensional Continuous Bulk Porous Bismuth for Ultrafast Sodium Storage. Advanced Functional Materials, 2021, 31, 2011264.	7.8	45
27	Boosting lithium storage performance of Si nanoparticles via thin carbon and nitrogen/phosphorus co-doped two-dimensional carbon sheet dual encapsulation. Rare Metals, 2021, 40, 1347-1356.	3.6	115
28	Stable Hollowâ€Structured Silicon Suboxideâ€Based Anodes toward Highâ€Performance Lithiumâ€Ion Batteries. Advanced Functional Materials, 2021, 31, 2101796.	7.8	127
29	Lithium Storage in Bowl-like Carbon: The Effect of Surface Curvature and Space Geometry on Li Metal Deposition. ACS Energy Letters, 2021, 6, 2145-2152.	8.8	41
30	Fast and Durable Potassium Storage Enabled by Constructing Stress-Dispersed Co₃Se₄ Nanocrystallites Anchored on Graphene Sheets. ACS Nano, 2021, 15, 10107-10118.	7.3	57
31	Design principles and direct applications of cobalt-based metal-organic frameworks for electrochemical energy storage. Coordination Chemistry Reviews, 2021, 438, 213872.	9.5	51
32	LiPO2F2 electrolyte additive for high-performance Li-rich cathode material. Journal of Energy Chemistry, 2021, 60, 564-571.	7.1	49
33	Secondary Bonding Channel Design Induces Intercalation Pseudocapacitance toward Ultrahighâ€Capacity and Highâ€Rate Organic Electrodes. Advanced Materials, 2021, 33, e2104039.	11.1	18
34	Harnessing the Volume Expansion of MoS₃ Anode by Structure Engineering to Achieve High Performance Beyond Lithiumâ€Based Rechargeable Batteries. Advanced Materials, 2021, 33, e2106232.	11.1	83
35	Rational design of three-dimensional branched NiCo-P@CoNiMo-P core/shell nanowire heterostructures for high-performance hybrid supercapacitor. Journal of Energy Chemistry, 2021, 61, 489-496.	7.1	38
36	Self-supporting transition metal chalcogenides on metal substrates for catalytic water splitting. Chemical Engineering Journal, 2021, 421, 129645.	6.6	62

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37	Confining invasion directions of Li+ to achieve efficient Si anode material for lithium-ion batteries. Energy Storage Materials, 2021, 42, 231-239.	9.5	41
38	Editorial for special issue on advanced materials for energy storage and conversion. International Journal of Minerals, Metallurgy and Materials, 2021, 28, 1545-1548.	2.4	10
39	Constructing Robust Cross-Linked Binder Networks for Silicon Anodes with Improved Lithium Storage Performance. ACS Applied Materials & Interfaces, 2021, 13, 53818-53828.	4.0	32
40	An Efficient Strategy toward Multichambered Carbon Nanoboxes with Multiple Spatial Confinement for Advanced Sodiumâ€“Sulfur Batteries. ACS Nano, 2021, 15, 20607-20618.	7.3	38
41	High performance columnar-like Fe2O3@carbon composite anode via yolk@shell structural design. Journal of Energy Chemistry, 2020, 41, 126-134.	7.1	191
42	Strongly Coupled MoS₂ Nanocrystal/Ti₃C₂ Nanosheet Hybrids Enable Highâ€Capacity Lithiumâ€Ion Storage. ChemSusChem, 2020, 13, 1485-1490.	3.6	39
43	Anode Materials: Realizing Reversible Conversionâ€Alloying of Sb(V) in Polyantimonic Acid for Fast and Durable Lithiumâ€and Potassiumâ€Ion Storage (Adv. Energy Mater. 1/2020). Advanced Energy Materials, 2020, 10, 2070002.	10.2	1
44	Stable Nanoâ€Encapsulation of Lithium Through Seedâ€Free Selective Deposition for Highâ€Performance Li Battery Anodes. Advanced Energy Materials, 2020, 10, 1902956.	10.2	65
45	Optimizing the Void Size of Yolkâ€“Shell Bi@Void@C Nanospheres for High-Power-Density Sodium-Ion Batteries. Nano Letters, 2020, 20, 758-767.	4.5	129
46	Realizing Reversible Conversionâ€Alloying of Sb(V) in Polyantimonic Acid for Fast and Durable Lithiumâ€and Potassiumâ€Ion Storage. Advanced Energy Materials, 2020, 10, 1903119.	10.2	57
47	Achieving Fast and Durable Lithium Storage through Amorphous FeP Nanoparticles Encapsulated in Ultrathin 3D P-Doped Porous Carbon Nanosheets. ACS Nano, 2020, 14, 9545-9561.	7.3	250
48	Hierarchical Design of Mn₂P Nanoparticles Embedded in N,P-Codoped Porous Carbon Nanosheets Enables Highly Durable Lithium Storage. ACS Applied Materials & Interfaces, 2020, 12, 36247-36258.	4.0	36
49	Micro/nanostructured TiNb₂O₇-related electrode materials for high-performance electrochemical energy storage: recent advances and future prospects. Journal of Materials Chemistry A, 2020, 8, 18425-18463.	5.2	59
50	In Situ Atomicâ€Scale Observation of Reversible Potassium Storage in Sb₂S₃@Carbon Nanowire Anodes. Advanced Functional Materials, 2020, 30, 2005417.	7.8	75
51	On the Interface Design of Si and Multilayer Graphene for a High-Performance Li-Ion Battery Anode. ACS Applied Materials & Interfaces, 2020, 12, 44840-44849.	4.0	36
52	Covalent Assembly of MoS₂ Nanosheets with SnS Nanodots as Linkages for Lithium/Sodiumâ€Ion Batteries. Angewandte Chemie - International Edition, 2020, 59, 14621-14627.	7.2	124
53	Covalent Assembly of MoS₂ Nanosheets with SnS Nanodots as Linkages for Lithium/Sodiumâ€Ion Batteries. Angewandte Chemie, 2020, 132, 14729-14735.	1.6	26
54	Potassiumâ€Ion Batteries: Surface Amorphization of Vanadium Dioxide (B) for Kâ€Ion Battery (Adv. Energy) Tj ETQq0 0 0 rgBT /Overlock	10.2	23

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55	Organic polymeric filler-amorphized poly(ethylene oxide) electrolyte enables all-solid-state lithiumâ€“metal batteries operating at 35 Â°C. Journal of Materials Chemistry A, 2020, 8, 13351-13363.	5.2	51
56	Nano-size porous carbon spheres as a high-capacity anode with high initial coulombic efficiency for potassium-ion batteries. Nanoscale Horizons, 2020, 5, 895-903.	4.1	42
57	Lithium Batteries: Stable Nanoâ€Encapsulation of Lithium Through Seedâ€Free Selective Deposition for Highâ€Performance Li Battery Anodes (Adv. Energy Mater. 7/2020). Advanced Energy Materials, 2020, 10, 2070031.	10.2	2
58	Highly integrated sulfur cathodes with strong sulfur/high-strength binder interactions enabling durable high-loading lithiumâ€“sulfur batteries. Journal of Energy Chemistry, 2020, 49, 71-79.	7.1	20
59	Ultrahigh and Durable Volumetric Lithium/Sodium Storage Enabled by a Highly Dense Graphene-Encapsulated Nitrogen-Doped Carbon@Sn Compact Monolith. Nano Letters, 2020, 20, 2034-2046.	4.5	74
60	Surface Amorphization of Vanadium Dioxide (B) for Kâ€Ion Battery. Advanced Energy Materials, 2020, 10, 2000717.	10.2	109
61	Lowâ€Energy CO₂ Reduction on a Metalâ€Free Carbon Material. ChemElectroChem, 2020, 7, 2145-2150.	1.7	7
62	Insights into the lithiation mechanism of CF_x by a joint high-resolution ¹⁹F NMR, in situ TEM and ⁷Li NMR approach. Journal of Materials Chemistry A, 2019, 7, 19793-19799.	5.2	33
63	Facilitating the Câ€“C bond cleavage on sub-10 nm concavity-tunable Rh@Pt coreâ€“shell nanocubes for efficient ethanol electrooxidation. Journal of Materials Chemistry A, 2019, 7, 17987-17994.	5.2	36
64	Double-shelled microscale porous Si anodes for stable lithium-ion batteries. Journal of Power Sources, 2019, 436, 226794.	4.0	24
65	Encapsulating lithium and sodium inside amorphous carbon nanotubes through gold-seeded growth. Nano Energy, 2019, 66, 104178.	8.2	40
66	Yolkâ€“shell structured metal oxide@carbon nanoring anode boosting performance of lithium-ion batteries. New Journal of Chemistry, 2019, 43, 16148-16155.	1.4	10
67	Seamless interconnections of sp²-bonded carbon nanostructures via the crystallization of a bridging amorphous carbon joint. Materials Horizons, 2019, 6, 72-80.	6.4	10
68	Boosting Potassium-Ion Battery Performance by Encapsulating Red Phosphorus in Free-Standing Nitrogen-Doped Porous Hollow Carbon Nanofibers. Nano Letters, 2019, 19, 1351-1358.	4.5	239
69	Heterostructured Nanocubeâ€Shaped Binary Sulfide (SnCo)S₂ Interlaced with Sâ€Doped Graphene as a Highâ€Performance Anode for Advanced Na⁺ Batteries. Advanced Functional Materials, 2019, 29, 1807971.	7.8	154
70	Top-down fabrication of small carbon nanotubes. Nanoscale Horizons, 2019, 4, 1310-1317.	4.1	8
71	Monolayer triphosphates MP₃ (M = Sn, Ge) with excellent basal catalytic activity for hydrogen evolution reaction. Nanoscale, 2019, 11, 12210-12219.	2.8	76
72	Advances in nanostructures fabricatedviaspray pyrolysis and their applications in energy storage and conversion. Chemical Society Reviews, 2019, 48, 3015-3072.	18.7	260

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73	High Initial Reversible Capacity and Long Life of Ternary SnO2-Co-carbon Nanocomposite Anodes for Lithium-Ion Batteries. Nano-Micro Letters, 2019, 11, 18.	14.4	41
74	Spatially confining and chemically bonding amorphous red phosphorus in the nitrogen doped porous carbon tubes leading to superior sodium storage performance. Journal of Materials Chemistry A, 2019, 7, 8581-8588.	5.2	27
75	Scalable synthesis of ant-nest-like bulk porous silicon for high-performance lithium-ion battery anodes. Nature Communications, 2019, 10, 1447.	5.8	494
76	Casting amorphorized SnO2/MoO3 hybrid into foam-like carbon nanoflakes towards high-performance pseudocapacitive lithium storage. Journal of Colloid and Interface Science, 2019, 547, 299-308.	5.0	29
77	Simultaneously Dual Modification of Niâ€Rich Layered Oxide Cathode for Highâ€Energy Lithiumâ€Ion Batteries. Advanced Functional Materials, 2019, 29, 1808825.	7.8	430
78	Electrochemical Performance of Hybrid Cationic Aqueous-Based Rechargeable Battery with Different Current Collectors and Electrolytes. International Journal of Photoenergy, 2019, 2019, 1-7.	1.4	1
79	Nitrogen-doped graphdiyne nanowall stabilized dendrite-free lithium metal anodes. Journal of Materials Chemistry A, 2019, 7, 27535-27546.	5.2	28
80	Enhanced Electrochemical Performance of Li-Rich Layered Cathode Materials by Combined Cr Doping and LiAlO₂ Coating. ACS Sustainable Chemistry and Engineering, 2019, 7, 2225-2235.	3.2	116
81	Composition optimized trimetallic PtNiRu dendritic nanostructures as versatile and active electrocatalysts for alcohol oxidation. Nano Research, 2019, 12, 651-657.	5.8	49
82	Aluminum and Nitrogen Codoped Graphene: Highly Active and Durable Electrocatalyst for Oxygen Reduction Reaction. ACS Catalysis, 2019, 9, 610-619.	5.5	56
83	Robust erythrocyte-like Fe2O3@carbon with yolk-shell structures as high-performance anode for lithium ion batteries. Chemical Engineering Journal, 2018, 347, 563-573.	6.6	179
84	Encapsulating Silica/Antimony into Porous Electrospun Carbon Nanofibers with Robust Structure Stability for High-Efficiency Lithium Storage. ACS Nano, 2018, 12, 3406-3416.	7.3	149
85	Harnessing the concurrent reaction dynamics in active Si and Ge to achieve high performance lithium-ion batteries. Energy and Environmental Science, 2018, 11, 669-681.	15.6	329
86	Rational Design of Nickel Hydroxideâ€Based Nanocrystals on Graphene for Ultrafast Energy Storage. Advanced Energy Materials, 2018, 8, 1702247.	10.2	211
87	Structural and electrical properties tailoring of carbon nanotubes via a reversible defect handling technique. Carbon, 2018, 133, 186-192.	5.4	15
88	Construction of MoS₂/C Hierarchical Tubular Heterostructures for High-Performance Sodium Ion Batteries. ACS Nano, 2018, 12, 12578-12586.	7.3	272
89	Mechanistic Origin of the High Performance of Yolk@Shell Bi₂S₃@N-Doped Carbon Nanowire Electrodes. ACS Nano, 2018, 12, 12597-12611.	7.3	213
90	Tin Nanoparticles Encapsulated Carbon Nanoboxes as High-Performance Anode for Lithium-Ion Batteries. Frontiers in Chemistry, 2018, 6, 533.	1.8	18

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91	Fabrication and understanding of Cu₃Si-Si@carbon@graphene nanocomposites as high-performance anodes for lithium-ion batteries. Nanoscale, 2018, 10, 22203-22214.	2.8	103
92	Improved Cycling Stability of Na-Doped Cathode Materials Li_{1.2}Ni_{0.2}Mn_{0.6}O₂ via a Facile Synthesis. ACS Sustainable Chemistry and Engineering, 2018, 6, 13045-13055.	3.2	56
93	Controlling Surface Oxides in Si/C Nanocomposite Anodes for Highâ€Performance Liâ€Ion Batteries. Advanced Energy Materials, 2018, 8, 1801718.	10.2	190
94	In-situ electron microscopy observation of electrochemical sodium plating and stripping dynamics on carbon nanofiber current collectors. Nano Energy, 2017, 42, 122-128.	8.2	53
95	Grapheneâ€Encapsulated Nanosheetâ€Assembled Zincâ€“Nickelâ€“Cobalt Oxide Microspheres for Enhanced Lithium Storage. ChemSusChem, 2016, 9, 186-196.	3.6	35
96	Graphene-Encapsulated Nanosheet-Assembled Zinc-Nickel-Cobalt Oxide Microspheres for Enhanced Lithium Storage. ChemSusChem, 2016, 9, 128-128.	3.6	0
97	Approaching the ideal elastic strain limit in silicon nanowires. Science Advances, 2016, 2, e1501382.	4.7	169
98	Activated Microporous Carbon Derived from Almond Shells for High Energy Density Asymmetric Supercapacitors. ACS Applied Materials & Interfaces, 2016, 8, 15288-15296.	4.0	99
99	Facile general strategy toward hierarchical mesoporous transition metal oxides arrays on three-dimensional macroporous foam with superior lithium storage properties. Nano Energy, 2015, 13, 77-91.	8.2	164
100	3D hierarchically porous zincâ€“nickelâ€“cobalt oxide nanosheets grown on Ni foam as binder-free electrodes for electrochemical energy storage. Journal of Materials Chemistry A, 2015, 3, 24022-24032.	5.2	67
101	Hierarchical Mesoporous Zincâ€“Nickelâ€“Cobalt Ternary Oxide Nanowire Arrays on Nickel Foam as High-Performance Electrodes for Supercapacitors. ACS Applied Materials & Interfaces, 2015, 7, 26512-26521.	4.0	234
102	A hydrolysis-hydrothermal route for the synthesis of ultrathin LiAlO₂-inlaid LiNi_{0.5}Co_{0.2}Mn_{0.3}O₂ as a high-performance cathode material for lithium ion batteries. Journal of Materials Chemistry A, 2015, 3, 894-904.	5.2	286
103	Improved lithium ion battery performance by mesoporous Co3O4 nanosheets grown on self-standing NiSix nanowires on nickel foam. Journal of Materials Chemistry A, 2014, 2, 8483.	5.2	48
104	In Situ Synthesis of CuO and Cu Nanostructures with Promising Electrochemical and Wettability Properties. Small, 2014, 10, 935-943.	5.2	34
105	Facile large-scale synthesis of vertically aligned CuO nanowires on nickel foam: growth mechanism and remarkable electrochemical performance. Journal of Materials Chemistry A, 2014, 2, 3865.	5.2	104
106	Mesoporous ZnCo 2 O 4 microspheres composed of ultrathin nanosheets cross-linked with metallic NiSi x nanowires on Ni foam as anodes for lithium ion batteries. Nano Energy, 2014, 10, 245-258.	8.2	76
107	Growth of Hierarchical 3D Mesoporous NiSi_x/NiCo₂O₄ Core/Shell Heterostructures on Nickel Foam for Lithiumâ€Ion Batteries. ChemSusChem, 2014, 7, 2325-2334.	3.6	58
108	âŸ¨0001âŸ©-Preferential Growth of CdSe Nanowires on Conducting Glass: Template-Free Electrodeposition and Application in Photovoltaics. Chemistry of Materials, 2010, 22, 2705-2710.	3.2	63