Gaoran Li

List of Publications by Year in descending order

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94 papers	8,261 citations	47409 49 h-index	53065 89 g-index
97 all docs	97 docs citations	97 times ranked	9020 citing authors

#	Article	IF	Citations
1	Nitrogen-doped carbon embedded with Ag nanoparticles for bidirectionally-promoted polysulfide redox electrochemistry. Chemical Engineering Journal, 2022, 427, 130897.	6.6	9
2	Ordered macroporous V-doped ZnO framework impregnated with microporous carbon nanocages as multifunctional sulfur reservoir in lithium-sulfur batteries. Chemical Engineering Journal, 2022, 431, 134242.	6.6	18
3	A spatially efficient â€œtube-in-tubeâ€•hybrid for durable sulfur electrochemistry. Journal of Materials Chemistry A, 2022, 10, 5460-5469.	5.2	5
4	Coordinatively Deficient Single-atom Fe-N-C Electrocatalyst with Optimized Electronic Structure for High-performance Lithium-sulfur Batteries. Energy Storage Materials, 2022, 46, 269-277.	9.5	95
5	Finelyâ€Dispersed Ni₂Co Nanoalloys on Flowerâ€Like Graphene Microassembly Empowering a Biâ€Service Matrix for Superior Lithiumâ€“Sulfur Electrochemistry. Advanced Functional Materials, 2022, 32, .	7.8	22
6	Three-dimensional structural confinement design of conductive metal oxide for efficient sulfur host in Lithium-sulfur batteries. Chemical Engineering Journal, 2022, 448, 137656.	6.6	16
7	Unsaturated coordination polymer frameworks as multifunctional sulfur reservoir for fast and durable lithium-sulfur batteries. Nano Energy, 2021, 79, 105393.	8.2	37
8	Dissolving Vanadium into Titanium Nitride Lattice Framework for Rational Polysulfide Regulation in Liâ€“S Batteries. Advanced Energy Materials, 2021, 11, 2003020.	10.2	52
9	Amorphousâ€“crystalline-heterostructured niobium oxide as two-in-one host matrix for high-performance lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2021, 9, 11160-11167.	5.2	39
10	Constructing multifunctional solid electrolyte interface via in-situ polymerization for dendrite-free and low N/P ratio lithium metal batteries. Nature Communications, 2021, 12, 186.	5.8	163
11	Hierarchical Microâ€Nanoclusters of Bimetallic Layered Hydroxide Polyhedrons as Advanced Sulfur Reservoir for Highâ€Performance Lithiumâ€“Sulfur Batteries. Advanced Science, 2021, 8, 2003400.	5.6	63
12	Reinforced polysulfide barrier by g-C3N4/CNT composite towards superior lithium-sulfur batteries. Journal of Energy Chemistry, 2021, 53, 234-240.	7.1	74
13	Lithiumâ€“Sulfur Batteries: Hierarchical Microâ€Nanoclusters of Bimetallic Layered Hydroxide Polyhedrons as Advanced Sulfur Reservoir for Highâ€Performance Lithiumâ€“Sulfur Batteries (Adv. Sci.) Tj ETQq1 1 0.784314 rgBT /O		
14	â€œSaunaâ€•Activation toward Intrinsic Lattice Deficiency in Carbon Nanotube Microspheres for Highâ€Energy and Longâ€Lasting Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2021, 11, 2100497.	10.2	53
15	Facile fabrication of compact LiFePO4/C composite with excellent atomically-efficient for high-energy-density Li-ion batteries. Journal of Power Sources, 2021, 496, 229759.	4.0	17
16	Aligned sulfur-deficient ZnS1â^'x nanotube arrays as efficient catalyzer for high-performance lithium/sulfur batteries. Nano Energy, 2021, 84, 105891.	8.2	81
17	Liâ€“S Batteries: â€œSaunaâ€•Activation toward Intrinsic Lattice Deficiency in Carbon Nanotube Microspheres for Highâ€Energy and Longâ€Lasting Lithiumâ€“Sulfur Batteries (Adv. Energy Mater. 26/2021). Advanced Energy Materials, 2021, 11, 2170099.	10.2	1
18	3d-Orbital Occupancy Regulated Ir-Co Atomic Pair Toward Superior Bifunctional Oxygen Electrocatalysis. ACS Catalysis, 2021, 11, 8837-8846.	5.5	110

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19	Amorphizing metal-organic framework towards multifunctional polysulfide barrier for high-performance lithium-sulfur batteries. Nano Energy, 2021, 86, 106094.	8.2	103
20	Î´-VOPO4 nanosheet with intrinsic V4+ defective as high-performance cathode for sodium-ion battery. Materials Today Energy, 2021, 21, 100756.	2.5	8
21	3D ordered macroporous amorphous Nb2O5 as anode material for high-performance sodium-ion batteries. Applied Surface Science, 2021, 567, 150862.	3.1	17
22	Oxygen-deficient and orderly mesoporous cobalt oxide nanospheres for superior lithium storage. Journal of Alloys and Compounds, 2021, 887, 161339.	2.8	5
23	Porous Carbon Nanosheets Armoring 3D Current Collectors toward Ultrahigh Mass Loading for High-Energy-Density All-Solid-State Supercapacitors. ACS Applied Materials & Interfaces, 2021, 13, 52519-52529.	4.0	6
24	Interspersing Partially Oxidized V₂C Nanosheets and Carbon Nanotubes toward Multifunctional Polysulfide Barriers for High-Performance Lithium-Sulfur Batteries. ACS Applied Materials & Interfaces, 2021, 13, 56085-56094.	4.0	26
25	Biomass-derived nitrogen-doped hierarchical porous carbon as efficient sulfur host for lithiumâ€“sulfur batteries. Journal of Energy Chemistry, 2020, 44, 61-67.	7.1	147
26	Zwitterionic impetus on single lithium-ion conduction in solid polymer electrolyte for all-solid-state lithium-ion batteries. Chemical Engineering Journal, 2020, 384, 123237.	6.6	47
27	Lowâ€Bandgap Seâ€Deficient Antimony Selenide as a Multifunctional Polysulfide Barrier toward Highâ€Performance Lithiumâ€“Sulfur Batteries. Advanced Materials, 2020, 32, e1904876.	11.1	206
28	Metallically conductive TiB2 as a multi-functional separator modifier for improved lithium sulfur batteries. Journal of Power Sources, 2020, 448, 227336.	4.0	34
29	A Triphasic Bifunctional Oxygen Electrocatalyst with Tunable and Synergetic Interfacial Structure for Rechargeable Znâ€Air Batteries. Advanced Energy Materials, 2020, 10, 1903003.	10.2	74
30	Engineering the Conductive Network of Metal Oxideâ€Based Sulfur Cathode toward Efficient and Longevous Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2020, 10, 2002076.	10.2	126
31	Ultrafine, high-loading and oxygen-deficient cerium oxide embedded on mesoporous carbon nanosheets for superior lithiumâ€“oxygen batteries. Nano Energy, 2020, 71, 104570.	8.2	28
32	Tensile-strained ruthenium phosphide by anion substitution for highly active and durable hydrogen evolution. Nano Energy, 2020, 77, 105212.	8.2	39
33	Regulating the Li⁺â€Solvation Structure of Ester Electrolyte for Highâ€Energyâ€Density Lithium Metal Batteries. Small, 2020, 16, e2004688.	5.2	34
34	Engineering Solvation Complexâ€“Membrane Interaction to Suppress Cation Crossover in 3 V Cuâ€Al Battery. Small, 2020, 16, 2003438.	5.2	11
35	Graphene Quantum Dotsâ€Based Advanced Electrode Materials: Design, Synthesis and Their Applications in Electrochemical Energy Storage and Electrocatalysis. Advanced Energy Materials, 2020, 10, 2001275.	10.2	109
36	Revealing the Rapid Electrocatalytic Behavior of Ultrafine Amorphous Defective Nb₂O_{5â€“x} Nanocluster toward Superior Liâ€“S Performance. ACS Nano, 2020, 14, 4849-4860.	7.3	201

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37	Three-dimensionally ordered macro-microporous metal organic frameworks with strong sulfur immobilization and catalyzation for high-performance lithium-sulfur batteries. Nano Energy, 2020, 72, 104685.	8.2	160
38	Na2CoPO4F as a pseudocapacitive anode for high-performance and ultrastable hybrid sodium-ion capacitors. Electrochimica Acta, 2020, 342, 136024.	2.6	9
39	Tantalum-Based Electrocatalyst for Polysulfide Catalysis and Retention for High-Performance Lithium-Sulfur Batteries. Matter, 2020, 3, 920-934.	5.0	104
40	Reviewâ€"Wearable Graphene Devices for Sensing. Journal of the Electrochemical Society, 2020, 167, 037541.	1.3	38
41	Fast production of zincâ€"hexamethylenetetramine complex microflowers as an advanced sulfur reservoir for high-performance lithiumâ€"sulfur batteries. Journal of Materials Chemistry A, 2020, 8, 5062-5069.	5.2	14
42	Lithiumâ€Sulfur Batteries: Lowâ€Bandgap Seâ€Deficient Antimony Selenide as a Multifunctional Polysulfide Barrier toward Highâ€Performance Lithiumâ€"Sulfur Batteries (Adv. Mater. 4/2020). Advanced Materials, 2020, 32, 2070030.	11.1	6
43	Advanced Electrode Materials Comprising of Structureâ€Engineered Quantum Dots for Highâ€Performance Asymmetric Microâ€Supercapacitors. Advanced Energy Materials, 2020, 10, 1903724.	10.2	36
44	Polysulfide Regulation by the Zwitterionic Barrier toward Durable Lithiumâ€"Sulfur Batteries. Journal of the American Chemical Society, 2020, 142, 3583-3592.	6.6	174
45	Hierarchical Defective Fe_{3â€‹}_xC@C Hollow Microsphere Enables Fast and Longâ€Lasting Lithiumâ€"Sulfur Batteries. Advanced Functional Materials, 2020, 30, 2001165.	7.8	144
46	Lithiumâ€"Sulfur Batteries: Hierarchical Defective Fe_{3â€‹}_xC@C Hollow Microsphere Enables Fast and Longâ€Lasting Lithiumâ€"Sulfur Batteries (Adv. Funct. Mater. 22/2020). Advanced Functional Materials, 2020, 30, .	7.8	1
47	Vertically rooting multifunctional tentacles on carbon scaffold as efficient polysulfide barrier toward superior lithium-sulfur batteries. Nano Energy, 2019, 64, 103905.	8.2	119
48	An ion conductive polyimide encapsulation: New insight and significant performance enhancement of sodium based P2 layered cathodes. Energy Storage Materials, 2019, 22, 168-178.	9.5	22
49	Defectâ€Enriched Nitrogen Dopedâ€"Graphene Quantum Dots Engineered NiCo₂S₄ Nanoarray as Highâ€Efficiency Bifunctional Catalyst for Flexible Znâ€Air Battery. Small, 2019, 15, e1903610.	5.2	84
50	A Singleâ€Atom Iridium Heterogeneous Catalyst in Oxygen Reduction Reaction. Angewandte Chemie, 2019, 131, 9742-9747.	1.6	59
51	RÃ¼cktitelbild: A Singleâ€Atom Iridium Heterogeneous Catalyst in Oxygen Reduction Reaction (Angew.) Tj ETQq1 1 0.784314 rgBT /Ov	1.6	1
52	Improved Composite Solid Electrolyte through Ionic Liquid-Assisted Polymer Phase for Solid-State Lithium Ion Batteries. Journal of the Electrochemical Society, 2019, 166, A1785-A1792.	1.3	20
53	Black BaTiO3 as multifunctional sulfur immobilizer for superior lithium sulfur batteries. Journal of Power Sources, 2019, 434, 226729.	4.0	34
54	A Singleâ€Atom Iridium Heterogeneous Catalyst in Oxygen Reduction Reaction. Angewandte Chemie - International Edition, 2019, 58, 9640-9645.	7.2	312

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55	Synergistic Engineering of Defects and Architecture in Binary Metal Chalcogenide toward Fast and Reliable Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2019, 9, 1900228.	10.2	177
56	Constructing metal-free and cost-effective multifunctional separator for high-performance lithium-sulfur batteries. Nano Energy, 2019, 59, 390-398.	8.2	96
57	Engineering Energy Level of Metal Center: Ru Single-Atom Site for Efficient and Durable Oxygen Reduction Catalysis. Journal of the American Chemical Society, 2019, 141, 19800-19806.	6.6	288
58	In-situ ion-activated carbon nanospheres with tunable ultramicroporosity for superior CO2 capture. Carbon, 2019, 143, 531-541.	5.4	96
59	Revisiting the Role of Polysulfides in Lithiumâ€“Sulfur Batteries. Advanced Materials, 2018, 30, e1705590.	11.1	456
60	Two-Dimensional Phosphorus-Doped Carbon Nanosheets with Tunable Porosity for Oxygen Reactions in Zinc-Air Batteries. ACS Catalysis, 2018, 8, 2464-2472.	5.5	175
61	Metal/Graphene Composites with Strong Metalâ€“S Bondings for Sulfur Immobilization in Liâ€“S Batteries. Journal of Physical Chemistry C, 2018, 122, 3263-3272.	1.5	36
62	Lithium-Sulfur Batteries for Commercial Applications. CheM, 2018, 4, 3-7.	5.8	174
63	Fabrication of oriented-macroporous-carbon incorporated with Î³-Al2O3 for high performance lithium-sulfur battery. Microporous and Mesoporous Materials, 2018, 266, 276-282.	2.2	19
64	In Situ Synthesis of Li₂Sâ€Loaded amphiphilic Porous Carbon and Modification of the Li₂S Electrode for Longâ€Life Li₂S Batteries. ChemElectroChem, 2018, 5, 112-118.	1.7	12
65	3D Porous Carbon Sheets with Multidirectional Ion Pathways for Fast and Durable Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2018, 8, 1702381.	10.2	165
66	Conductive Nanocrystalline Niobium Carbide as Highâ€Efficiency Polysulfides Tamer for Lithiumâ€Sulfur Batteries. Advanced Functional Materials, 2018, 28, 1704865.	7.8	210
67	2D molybdenum nitride nanosheets as anode materials for improved lithium storage. Nanoscale, 2018, 10, 18936-18941.	2.8	61
68	The Dualâ€Play of 3D Conductive Scaffold Embedded with Co, N Codoped Hollow Polyhedra toward Highâ€Performance Liâ€“S Full Cell. Advanced Energy Materials, 2018, 8, 1802561.	10.2	114
69	Recessed deposition of TiN into N-doped carbon as a cathode host for superior Li-S batteries performance. Nano Energy, 2018, 54, 1-9.	8.2	103
70	Stringed â€œtube on cubeâ€•nanohybrids as compact cathode matrix for high-loading and lean-electrolyte lithiumâ€“sulfur batteries. Energy and Environmental Science, 2018, 11, 2372-2381.	15.6	255
71	A novel class of functional additives for cyclability enhancement of the sulfur cathode in lithium sulfur batteries. Inorganic Chemistry Frontiers, 2018, 5, 2013-2017.	3.0	13
72	Conductive molybdenum carbide as the polysulfide reservoir for lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2018, 6, 17142-17147.	5.2	37

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73	Exploring Chemical, Mechanical, and Electrical Functionalities of Binders for Advanced Energy-Storage Devices. Chemical Reviews, 2018, 118, 8936-8982.	23.0	575
74	Foldable interpenetrated metal-organic frameworks/carbon nanotubes thin film for lithiumâ€“sulfur batteries. Nature Communications, 2017, 8, 14628.	5.8	436
75	A facile self-templating synthesis of carbon frameworks with tailored hierarchical porosity for enhanced energy storage performance. Chemical Communications, 2017, 53, 5028-5031.	2.2	9
76	A novel strategy for high-stability lithium sulfur batteries by in situ formation of polysulfide adsorptive-blocking layer. Journal of Power Sources, 2017, 355, 147-153.	4.0	30
77	CNT-threaded N-doped porous carbon film as binder-free electrode for high-capacity supercapacitor and Liâ€“S battery. Journal of Materials Chemistry A, 2017, 5, 9775-9784.	5.2	115
78	Flexible and Binder-Free Hierarchical Porous Carbon Film for Supercapacitor Electrodes Derived from MOFs/CNT. ACS Applied Materials & Interfaces, 2017, 9, 14043-14050.	4.0	167
79	Strings of Porous Carbon Polyhedrons as Selfâ€Standing Cathode Host for Highâ€Energyâ€Density Lithiumâ€“Sulfur Batteries. Angewandte Chemie, 2017, 129, 6272-6276.	1.6	37
80	Strings of Porous Carbon Polyhedrons as Selfâ€Standing Cathode Host for Highâ€Energyâ€Density Lithiumâ€“Sulfur Batteries. Angewandte Chemie - International Edition, 2017, 56, 6176-6180.	7.2	153
81	Tuning Shell Numbers of Transition Metal Oxide Hollow Microspheres toward Durable and Superior Lithium Storage. ACS Nano, 2017, 11, 11521-11530.	7.3	88
82	Highly Nitrogen-Doped Three-Dimensional Carbon Fibers Network with Superior Sodium Storage Capacity. ACS Applied Materials & Interfaces, 2017, 9, 28604-28611.	4.0	38
83	A facile and scalable method to prepare carbon nanotube-grafted-graphene for high performance Li-S battery. Journal of Power Sources, 2017, 339, 20-26.	4.0	54
84	B,N-Co-doped Graphene Supported Sulfur for Superior Stable Liâ€“S Half Cell and Geâ€“S Full Battery. ACS Applied Materials & Interfaces, 2016, 8, 27679-27687.	4.0	56
85	The dual actions of modified polybenzimidazole in taming the polysulfide shuttle for long-life lithiumâ€“sulfur batteries. NPG Asia Materials, 2016, 8, e317-e317.	3.8	54
86	A scalable in situ surfactant-free synthesis of a uniform MnO/graphene composite for highly reversible lithium storage. Dalton Transactions, 2016, 45, 19221-19225.	1.6	12
87	Porous Carbon as Anode Catalyst Support to Improve Borohydride Utilization in a Direct Borohydride Fuel Cell. Fuel Cells, 2015, 15, 270-277.	1.5	22
88	Acacia Senegalâ€“Inspired Bifunctional Binder for Longevity of Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2015, 5, 1500878.	10.2	223
89	TiO₂ Microboxes with Controlled Internal Porosity for Highâ€Performance Lithium Storage. Angewandte Chemie - International Edition, 2015, 54, 14331-14335.	7.2	75
90	A multi functional binder with lithium ion conductive polymer and polysulfide absorbents to improve cycleability of lithiumâ€“sulfur batteries. Journal of Power Sources, 2015, 294, 187-192.	4.0	85

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91	A novel laminated separator with multi functions for high-rate dischargeable lithiumâ€“sulfur batteries. Journal of Power Sources, 2015, 283, 524-529.	4.0	60
92	Developments of Electrolyte Systems for LithiumÃ¢â‚¬â€œSulfur Batteries: A Review. Frontiers in Energy Research, 2015, 3, .	1.2	36
93	Carbon-coated titanium dioxide micro-bowls as an anode material for Li-ion batteries. Electrochimica Acta, 2014, 125, 199-205.	2.6	12
94	Hydrogen generation from borohydride hydrolysis on surface-alloyed Ni foam. Journal of Power Sources, 2013, 242, 621-626.	4.0	8