

# Quan-Bing Liu

## List of Publications by Year in descending order

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70  
papers

2,292  
citations

201575

27  
h-index

223716

46  
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72  
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72  
docs citations

72  
times ranked

2780  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Review of Functional Binders in Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2018, 8, 1802107.	10.2	324
2	Recent advances in understanding dendrite growth on alkali metal anodes. <i>EnergyChem</i> , 2019, 1, 100003.	10.1	146
3	Rational Design of Hierarchically Core-Shell Structured Ni <sub>3</sub> S <sub>2</sub> @NiMoO <sub>4</sub> Nanowires for Electrochemical Energy Storage. <i>Small</i> , 2018, 14, e1800791.	5.2	111
4	Lithium-Anode Protection in Lithium-Sulfur Batteries. <i>Trends in Chemistry</i> , 2019, 1, 693-704.	4.4	98
5	Structurally Ordered Fe <sub>3</sub> Pt Nanoparticles on Robust Nitride Support as a High Performance Catalyst for the Oxygen Reduction Reaction. <i>Advanced Energy Materials</i> , 2019, 9, 1803040.	10.2	96
6	Improved interfacial electronic contacts powering high sulfur utilization in all-solid-state lithium-sulfur batteries. <i>Energy Storage Materials</i> , 2020, 25, 436-442.	9.5	85
7	Engineering the electronic and strained interface for high activity of PdCore@Ptmonolayer electrocatalysts for oxygen reduction reaction. <i>Science Bulletin</i> , 2020, 65, 1396-1404.	4.3	76
8	A Simple and Scalable Route to Synthesize Co <sub>x</sub> Cu <sub>1-x</sub> O <sub>2</sub> @Co <sub>y</sub> Cu <sub>1-y</sub> Yol-Shell Microspheres, A High-Performance Catalyst to Hydrolyze Ammonia Borane for Hydrogen Production. <i>Small</i> , 2019, 15, e1805460.	3.2	62
9	N-Doped 3D Porous Ni/C Bifunctional Electrocatalysts for Alkaline Water Electrolysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 3974-3981.	3.2	59
10	CuCo <sub>2</sub> O <sub>4</sub> nanoplate film as a low-cost, highly active and durable catalyst towards the hydrolytic dehydrogenation of ammonia borane for hydrogen production. <i>Journal of Power Sources</i> , 2017, 355, 191-198.	4.0	57
11	A rational synthesis of single-atom iron-nitrogen electrocatalysts for highly efficient oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2020, 8, 16271-16282.	5.2	52
12	High sensitivity of TiO <sub>2</sub> nanorod array electrode for photoelectrochemical glucose sensor and its photo fuel cell application. <i>Electrochemistry Communications</i> , 2018, 94, 18-22.	2.3	51
13	Slurry-Coated Sulfur/Sulfide Cathode with Li Metal Anode for All-Solid-State Lithium-Sulfur Pouch Cells. <i>Batteries and Supercaps</i> , 2020, 3, 596-603.	2.4	50
14	Iron (Fe, Ni, Co)-based transition metal compounds for lithium-sulfur batteries: Mechanism, progress and prospects. <i>Journal of Energy Chemistry</i> , 2022, 73, 513-532.	7.1	50
15	Interfacial redox behaviors of sulfide electrolytes in fast-charging all-solid-state lithium metal batteries. <i>Energy Storage Materials</i> , 2020, 31, 267-273.	9.5	45
16	Synthesis of nitrogen-doped MnO/carbon network as an advanced catalyst for direct hydrazine fuel cells. <i>Journal of Power Sources</i> , 2019, 413, 209-215.	4.0	41
17	Materials Engineering in Perovskite for Optimized Oxygen Evolution Electrocatalysis in Alkaline Condition. <i>Small</i> , 2021, 17, e2006638.	5.2	41
18	High-performance LiFePO <sub>4</sub> /C materials: Effect of carbon source on microstructure and performance. <i>Journal of Power Sources</i> , 2012, 211, 52-58.	4.0	35

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19	Balanced capture and catalytic ability toward polysulfides by designing MoO <sub>2</sub> @Co <sub>2</sub> Mo <sub>3</sub> O <sub>8</sub> heterostructures for lithium-sulfur batteries. <i>Nanoscale</i> , 2021, 13, 15689-15698.	2.8	35
20	Co <sub>4</sub> N-Decorated 3D Wood-Derived Carbon Host Enables Enhanced Cathodic Electrocatalysis and Homogeneous Lithium Deposition for Lithium-Sulfur Full Cells. <i>Small</i> , 2022, 18, e2105664.	5.2	34
21	Manganese dioxide core-shell nanostructure to achieve excellent cycling stability for asymmetric supercapacitor applications. <i>RSC Advances</i> , 2017, 7, 33635-33641.	1.7	33
22	Synergistic effects of porphyrin-ring catalytic center and metal catalytic site from crosslinked porphyrin-based porous polyimides cathode host for lithium polysulfides conversion in lithium-sulfur batteries. <i>Chemical Engineering Journal</i> , 2022, 430, 132692.	6.6	33
23	Synthesis of nitrogen-doped ordered mesoporous carbon electrocatalyst: Nanoconfinement effect in SBA-15 template. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 18027-18032.	3.8	32
24	Sea-Urchin-like Hollow CuMoO <sub>4</sub> @CoMoO <sub>4</sub> Hybrid Microspheres, a Noble-Metal-like Robust Catalyst for the Fast Hydrogen Production from Ammonia Borane. <i>ACS Applied Energy Materials</i> , 2021, 4, 633-642.	2.5	31
25	Yolk-double shells hierarchical N-doped carbon nanosphere as an electrochemical nanoreactor for high performance lithium-sulfur batteries. <i>Carbon</i> , 2022, 198, 80-90.	5.4	30
26	Enhanced Cycleability of Amorphous MnO <sub>2</sub> by Covering on MnO <sub>2</sub> Needles in an Electrochemical Capacitor. <i>Materials</i> , 2017, 10, 988.	1.3	28
27	Ammonia borane methanolysis for hydrogen evolution on Cu <sub>3</sub> Mo <sub>2</sub> O <sub>9</sub> /NiMoO <sub>4</sub> hollow microspheres. <i>Chemical Engineering Journal</i> , 2022, 449, 137755.	6.6	28
28	Nitrogen-doped ordered mesoporous carbon: Effect of carbon precursor on oxygen reduction reactions. <i>Chinese Journal of Catalysis</i> , 2016, 37, 1562-1567.	6.9	27
29	Toward Practical All-solid-state Batteries with Sulfide Electrolyte: A Review. <i>Chemical Research in Chinese Universities</i> , 2020, 36, 377-385.	1.3	24
30	Inhibition of lithium dendrites and dead lithium by an ionic liquid additive toward safe and stable lithium metal anodes. <i>Chinese Chemical Letters</i> , 2022, 33, 3951-3954.	4.8	24
31	Fe <sub>3</sub> C@NCNT as a promoter for the sulfur cathode toward high-performance lithium-sulfur batteries. <i>Journal of Alloys and Compounds</i> , 2022, 899, 163245.	2.8	24
32	Rational Design of an Ionic Liquid-Based Electrolyte with High Ionic Conductivity Towards Safe Lithium/Lithium-Ion Batteries. <i>Chemistry - an Asian Journal</i> , 2019, 14, 2810-2814.	1.7	23
33	Direct Utilization of Photoinduced Charge Carriers to Promote Electrochemical Energy Storage. <i>Small</i> , 2021, 17, e2008047.	5.2	23
34	Stress Regulation on Atomic Bonding and Ionic Diffusivity: Mechanochemical Effects in Sulfide Solid Electrolytes. <i>Energy &amp; Fuels</i> , 2021, 35, 10210-10218.	2.5	22
35	Electrochemical Behavior of Vanadium Redox Couples on Carbon Electrode. <i>Journal of the Electrochemical Society</i> , 2016, 163, H937-H942.	1.3	21
36	CuO-Co <sub>3</sub> O <sub>4</sub> Composite Nanoplatelets for Hydrolyzing Ammonia Borane. <i>ACS Applied Nano Materials</i> , 2021, 4, 7640-7649.	2.4	21

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37	MnCo <sub>2</sub> O <sub>4</sub> film composed of nanoplates: synthesis, characterization and its superior catalytic performance in the hydrolytic dehydrogenation of ammonia borane. <i>Catalysis Science and Technology</i> , 2017, 7, 3573-3579.	2.1	20
38	Sulfuryl chloride as a functional additive towards dendrite-free and long-life Li metal anodes. <i>Journal of Materials Chemistry A</i> , 2019, 7, 25003-25009.	5.2	20
39	Modulating the Acidic Properties of Mesoporous Mo <sub>x</sub> Ni <sub>0.8</sub> Cu <sub>0.2</sub> O Nanowires for Enhanced Catalytic Performance toward the Methanolysis of Ammonia Borane for Hydrogen Production. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 27979-27993.	4.0	20
40	Enhancement of capacity at high charge/discharge rate and cyclic stability of LiFePO <sub>4</sub> /C by nickel doping. <i>Ionics</i> , 2013, 19, 445-450.	1.2	19
41	Mn Nanoparticles Encapsulated within Mesoporous Helical N-Doped Carbon Nanotubes as Highly Active Air Cathode for Zinc-Air Batteries. <i>Advanced Sustainable Systems</i> , 2019, 3, 1900085.	2.7	19
42	Scalable Construction of Hollow Multishell Co <sub>3</sub> O <sub>4</sub> with Mitigated Interface Reconstruction for Efficient Lithium Storage. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000667.	1.9	19
43	A dopamine-based high redox potential catholyte for aqueous organic redox flow battery. <i>Journal of Power Sources</i> , 2020, 460, 228124.	4.0	19
44	Achieving Dendrite-free lithium Plating/Stripping from mixed Ion/Electron-Conducting scaffold Li <sub>2</sub> S@Ni NWs-NF for stable lithium metal anodes. <i>Chemical Engineering Journal</i> , 2022, 447, 137401.	6.6	18
45	Achieving job-synergistic polysulfides adsorption-conversion within hollow structured MoS <sub>2</sub> /Co <sub>4</sub> S <sub>3</sub> /C heterojunction host for long-life lithium-sulfur batteries. <i>Journal of Colloid and Interface Science</i> , 2022, 626, 535-543.	5.0	17
46	Synergy of nitrogen vacancies and partially broken hydrogen bonds in graphitic carbon nitride for superior photocatalytic hydrogen evolution under visible light. <i>Catalysis Science and Technology</i> , 2022, 12, 5032-5044.	2.1	14
47	Robust InNCo <sub>3</sub> Mn Nitride-Supported Pt Nanoparticles as High-Performance Bifunctional Electrocatalysts for Zn-Air Batteries. <i>ACS Applied Energy Materials</i> , 2020, 3, 5293-5300.	2.5	13
48	Nonstoichiometric Cu <sub>0.6</sub> Ni <sub>0.4</sub> Co <sub>2</sub> O <sub>4</sub> Nanowires as an Anode Material for High Performance Lithium Storage. <i>Nanomaterials</i> , 2020, 10, 191.	1.9	13
49	Unusual Formation of CoS <sub>0.61</sub> Se <sub>0.25</sub> Anion Solid Solution with Sulfur Defects to Promote Electrocatalytic Water Reduction. <i>ACS Applied Energy Materials</i> , 2021, 4, 2976-2982.	2.5	12
50	An ultrathin 2D semi-ordered mesoporous silica film: co-operative assembly and application. <i>RSC Advances</i> , 2016, 6, 75058-75062.	1.7	11
51	Tuning the Catalytic Activity of Ir@Pt Nanoparticles Through Controlling Ir Core Size on Cathode Performance for PEM Fuel Cell Application. <i>Frontiers in Chemistry</i> , 2018, 6, 299.	1.8	11
52	Modification of Nitrate Ion Enables Stable Solid Electrolyte Interphase in Lithium Metal Batteries. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	9
53	Directional assist (010) plane growth in LiMnPO <sub>4</sub> prepared by solvothermal method with polyols to enhance electrochemical performance. <i>Chinese Journal of Chemical Engineering</i> , 2021, 36, 181-189.	1.7	7
54	Fabrication and Porous Architecture of Crosslinked Polyimides for Lithium-Sulfur Batteries and Their Electrochemical Properties. <i>Industrial &amp; Engineering Chemistry Research</i> , 0, , .	1.8	7

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55	Porous grape-like spherical silica with hydrogen storage capability, synthesized using neutral dual surfactants as templates. International Journal of Hydrogen Energy, 2009, 34, 3810-3815.	3.8	6
56	Simplifying the creation of iron compound inserted, nitrogen-doped carbon nanotubes and its catalytic application. Journal of Alloys and Compounds, 2021, 857, 157543.	2.8	6
57	Carbon-Based Conductive Frameworks and Metal Catalytic Sites Derived from Cross-Linked Porous Porphyrin-Based Polyimides for Enhanced Conversion of Lithium Polysulfides in Li-S Batteries. ACS Applied Energy Materials, 2021, 4, 14497-14507.	2.5	6
58	LiFePO <sub>4</sub> /C Microspheres with Nano-micro Structure, Prepared by Spray Drying Method Assisted with PVA as Template. Current Nanoscience, 2012, 8, 208-214.	0.7	5
59	Cu <sub>0.4</sub> Co <sub>0.6</sub> MoO <sub>4</sub> Nanorods Supported on Graphitic Carbon Nitride as a Highly Active Catalyst for the Hydrolytic Dehydrogenation of Ammonia Borane. Catalysts, 2019, 9, 714.	1.6	5
60	Self-Sacrifice Template Fabrication of Graphene-like Nitrogen-Doped Porous Carbon Nanosheets for Applications in Lithium-Ion Batteries and Oxygen Reduction Reaction. Energy Technology, 2021, 9, 2100666.	1.8	5
61	Phosphorus-Containing C <sub>9</sub> H <sub>21</sub> P <sub>3</sub> O <sub>6</sub> Molecules as an Electrolyte Additive Improves LiNi <sub>0.8</sub> Co <sub>0.1</sub> Mn <sub>0.1</sub> O <sub>2</sub> /Graphite Batteries Working in High/Low-Temperature Conditions. Industrial & Engineering Chemistry Research, 2022, 61, 4842-4849.	1.8	4
62	Tailoring the density of nanoflakes to enhance the hybrid battery performance of the NiS sheet array electrode. Materials Research Bulletin, 2021, 140, 111293.	2.7	3
63	Flexible Self-Supporting 3D Electrode Based on 3D Graphene-PPy@Fe-MnCo <sub>2</sub> O <sub>4</sub> Nanostructure Arrays toward High-Performance Wearable Supercapacitors. ACS Applied Energy Materials, 2022, 5, 5937-5946.	2.5	3
64	Boosted Catalytic Activity toward the Hydrolysis of Ammonia Borane by Mixing Co- and Cu-Based Catalysts. Catalysts, 2022, 12, 426.	1.6	3
65	Ni <sub>0.25</sub> Co <sub>0.75</sub> O nanowire array supported on Cu@CuO foam, an inexpensive and durable catalyst for hydrogen generation from ammonia borane. Catalysis Communications, 2021, 159, 106343.	1.6	2
66	Liquid Phase Therapy with Localized High-Concentration Electrolytes for Solid-State Li Metal Pouch Cells. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2020, .	2.2	2
67	Editorial: Recent Development of Nanocatalysts for Hydrogen Production. Frontiers in Chemistry, 2020, 8, 576.	1.8	1
68	Carbon-based cathode host derived from crosslinked porous polyimides for lithium-sulfur batteries and their electrochemical properties. International Journal of Hydrogen Energy, 2022, , .	3.8	1
69	Electrochemical Energy Storage: Direct Utilization of Photoinduced Charge Carriers to Promote Electrochemical Energy Storage (Small 21/2021). Small, 2021, 17, 2170103.	5.2	0
70	Enforced Electrocatalytic Oxidation of Low Concentration of Phenol On the Porous Ceramic Tube Based Electrode Supported With Platinum Nanoparticles. Current Nanoscience, 2013, 9, 792-797.	0.7	0