

# xiao bin Liao

## List of Publications by Citations

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44  
papers

2,119  
citations

21  
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46  
g-index

49  
ext. papers

2,897  
ext. citations

12.9  
avg, IF

5.17  
L-index

#	Paper	IF	Citations
44	Sodium Ion Stabilized Vanadium Oxide Nanowire Cathode for High-Performance Zinc-Ion Batteries. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1702463	21.8	454
43	Lithiophilic-lithiophobic gradient interfacial layer for a highly stable lithium metal anode. <i>Nature Communications</i> , <b>2018</b> , 9, 3729	17.4	236
42	Low-Crystalline Bimetallic Metal-Organic Framework Electrocatalysts with Rich Active Sites for Oxygen Evolution. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 285-292	20.1	150
41	Nanowires in Energy Storage Devices: Structures, Synthesis, and Applications. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1802369	21.8	114
40	Field Effect Enhanced Hydrogen Evolution Reaction of MoS Nanosheets. <i>Advanced Materials</i> , <b>2017</b> , 29, 1604464	24	111
39	Field-Effect Tuned Adsorption Dynamics of VSe Nanosheets for Enhanced Hydrogen Evolution Reaction. <i>Nano Letters</i> , <b>2017</b> , 17, 4109-4115	11.5	98
38	Carbon-MEMS-Based Alternating Stacked MoS @rGO-CNT Micro-Supercapacitor with High Capacitance and Energy Density. <i>Small</i> , <b>2017</b> , 13, 1700639	11	90
37	Oxygen Vacancy-Determined Highly Efficient Oxygen Reduction in NiCoO/Hollow Carbon Spheres. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 16410-16417	9.5	88
36	EMoO <sub>3</sub> - by plasma etching with improved capacity and stabilized structure for lithium storage. <i>Nano Energy</i> , <b>2018</b> , 49, 555-563	17.1	86
35	On-Chip Ni/Zn Microbattery Based on Hierarchical Ordered Porous Ni@Ni(OH) <sub>2</sub> Microelectrode with Ultrafast Ion and Electron Transport Kinetics. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1808470	15.6	56
34	High-Voltage Cycling Induced Thermal Vulnerability in LiCoO Cathode: Cation Loss and Oxygen Release Driven by Oxygen Vacancy Migration. <i>ACS Nano</i> , <b>2020</b> , 14, 6181-6190	16.7	55
33	Boosting Polysulfide Redox Kinetics by Graphene-Supported Ni Nanoparticles with Carbon Coating. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2000907	21.8	46
32	Reversible V <sup>3+</sup> /V <sup>5+</sup> double redox in lithium vanadium oxide cathode for zinc storage. <i>Energy Storage Materials</i> , <b>2020</b> , 29, 113-120	19.4	44
31	MoS <sub>2</sub> /MnO <sub>2</sub> heterostructured nanodevices for electrochemical energy storage. <i>Nano Research</i> , <b>2018</b> , 11, 2083-2092	10	40
30	Surface Pseudocapacitive Mechanism of Molybdenum Phosphide for High-Energy and High-Power Sodium-Ion Capacitors. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1900967	21.8	37
29	Heterostructure Design in Bimetallic Phthalocyanine Boosts Oxygen Reduction Reaction Activity and Durability. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2005000	15.6	30
28	Superior Hydrogen Evolution Reaction Performance in 2H-MoS to that of 1T Phase. <i>Small</i> , <b>2019</b> , 15, e1900964	28	28

27	Accurate Binding Energies for Lithium Polysulfides and Assessment of Density Functionals for Lithium-Sulfur Battery Research. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 20737-20747	3.8	27
26	Strongly Coupled Pyridine-V O [h H O Nanowires with Intercalation Pseudocapacitance and Stabilized Layer for High Energy Sodium Ion Capacitors. <i>Small</i> , <b>2019</b> , 15, e1900379	11	26
25	Wearable Textile-Based Co-Zn Alkaline Microbattery with High Energy Density and Excellent Reliability. <i>Small</i> , <b>2020</b> , 16, e2000293	11	26
24	Three-Dimensional Porous Nitrogen-Doped Carbon Nanosheet with Embedded NiCoS Nanocrystals for Advanced Lithium-Sulfur Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 9181-9189	9.5	21
23	Sn stabilized pyrovanadate structure rearrangement for zinc ion battery. <i>Nano Energy</i> , <b>2021</b> , 81, 105584	17.1	21
22	Extrapolation of high-order correlation energies: the WMS model. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 27375-27384	3.6	19
21	Langmuir-Blodgett Nanowire Devices for In Situ Probing of Zinc-Ion Batteries. <i>Small</i> , <b>2019</b> , 15, e190214	11	18
20	A three-dimensional nitrogen-doped graphene framework decorated with an atomic layer deposited ultrathin V <sub>2</sub> O <sub>5</sub> layer for lithium sulfur batteries with high sulfur loading. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 12106-12113	13	18
19	Gradient sulfur fixing separator with catalytic ability for stable lithium sulfur battery. <i>Chemical Engineering Journal</i> , <b>2021</b> , 422, 130107	14.7	18
18	Oxygen defects boost polysulfides immobilization and catalytic conversion: First-principles computational characterization and experimental design. <i>Nano Research</i> , <b>2020</b> , 13, 2299-2307	10	17
17	Unveiling the role of surface P=O group in P-doped Co <sub>3</sub> O <sub>4</sub> for electrocatalytic oxygen evolution by On-chip micro-device. <i>Nano Energy</i> , <b>2021</b> , 83, 105748	17.1	16
16	Ligand Modulation of Active Sites to Promote Electrocatalytic Oxygen Evolution.. <i>Advanced Materials</i> , <b>2022</b> , e2200270	24	16
15	Rational Design of Ion Transport Paths at the Interface of Metal-Organic Framework Modified Solid Electrolyte. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 22930-22938	9.5	15
14	Gradient SEI layer induced by liquid alloy electrolyte additive for high rate lithium metal battery. <i>Nano Energy</i> , <b>2021</b> , 88, 106237	17.1	14
13	In situ monitoring of the electrochemically induced phase transition of thermodynamically metastable 1T-MoS <sub>2</sub> at nanoscale. <i>Nanoscale</i> , <b>2020</b> , 12, 9246-9254	7.7	12
12	Density Functional Theory for Electrocatalysis. <i>Energy and Environmental Materials</i> ,	13	12
11	Electric field and photoelectrical effect bi-enhanced hydrogen evolution reaction. <i>Nano Research</i> , <b>2018</b> , 11, 3205-3212	10	11
10	Ultrastable High-Energy On-Chip Nickel-Bismuth Microbattery Powered by Crystalline Bi Anode and Ni(OH) <sub>2</sub> Cathode. <i>Energy Technology</i> , <b>2019</b> , 7, 1900144	3.5	9

9	One-step electrodeposited $\text{Mn}_x\text{Co}_{1-x}(\text{OH})_2$ nanosheet arrays as cathode for asymmetric on-chip micro-supercapacitors. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 223903	3.4	9
8	Interface cation migration kinetics induced oxygen release heterogeneity in layered lithium cathodes. <i>Energy Storage Materials</i> , <b>2021</b> , 36, 115-122	19.4	9
7	Facet-Dependent Oxygen Reduction Reaction Activity on the Surfaces of $\text{Co}_3\text{O}_4$ . <i>Energy and Environmental Materials</i> , <b>2020</b> , 4, 407	13	5
6	A Durable Ni-Zn Microbattery with Ultrahigh-Rate Capability Enabled by In Situ Reconstructed Nanoporous Nickel with Epitaxial Phase. <i>Small</i> , <b>2021</b> , 17, e2103136	11	5
5	Coordination environments tune the activity of oxygen catalysis on single atom catalysts: A computational study. <i>Nano Research</i> , 1	10	3
4	Sulfide synergistic electrochemical activity for high-performance alkaline rechargeable microbatteries. <i>Journal of Materials Science</i> , <b>2021</b> , 56, 629-639	4.3	3
3	Multistep Reaction Pathway for $\text{CO}_2$ Reduction on Hydride-Capped Si Nanosheets. <i>ChemCatChem</i> , <b>2020</b> , 12, 722-725	5.2	1
2	A facile surface alloy-engineering route to enable robust lithium metal anodes.. <i>Physical Chemistry Chemical Physics</i> , <b>2022</b> ,	3.6	1
1	Theoretical insights into dual-atom catalysts for the oxygen reduction reaction: the crucial role of orbital polarization. <i>Journal of Materials Chemistry A</i> ,	13	1