

# Xiao-Dong Zhu

## List of Publications by Citations

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74  
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30  
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49  
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81  
ext. papers

3,083  
ext. citations

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avg, IF

5.5  
L-index

#	Paper	IF	Citations
74	Smart Hybridization of TiO <sub>2</sub> Nanorods and Fe <sub>3</sub> O <sub>4</sub> Nanoparticles with Pristine Graphene Nanosheets: Hierarchically Nanoengineered Ternary Heterostructures for High-Rate Lithium Storage. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 3341-3350	15.6	164
73	High-performance Li <sub>4</sub> Ti <sub>5</sub> V <sub>x</sub> O <sub>12</sub> (0 ≤ x ≤ 0.3) as an anode material for secondary lithium-ion battery. <i>Electrochimica Acta</i> , <b>2009</b> , 54, 7464-7470	6.7	145
72	A review of recent developments in the surface modification of LiMn <sub>2</sub> O <sub>4</sub> as cathode material of power lithium-ion battery. <i>Ionics</i> , <b>2009</b> , 15, 779-784	2.7	138
71	Mechanistic understanding of the role separators playing in advanced lithium-sulfur batteries. <i>Information Materials</i> , <b>2020</b> , 2, 483-508	23.1	121
70	Flexible and robust MoS <sub>2</sub> -graphene hybrid paper cross-linked by a polymer ligand: a high-performance anode material for thin film lithium-ion batteries. <i>Chemical Communications</i> , <b>2013</b> , 49, 10305-7	5.8	120
69	Characterization of electrical properties of GDC doped A-site deficient LSCF based composite cathode using impedance spectroscopy. <i>Journal of Power Sources</i> , <b>2007</b> , 168, 338-345	8.9	119
68	Advanced electrochemical performance of Li <sub>4</sub> Ti <sub>4.95</sub> V <sub>0.05</sub> O <sub>12</sub> as a reversible anode material down to 0V. <i>Journal of Power Sources</i> , <b>2010</b> , 195, 285-288	8.9	102
67	Exploring the synergy of 2D MXene-supported black phosphorus quantum dots in hydrogen and oxygen evolution reactions. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 21255-21260	13	100
66	Molecular level distribution of black phosphorus quantum dots on nitrogen-doped graphene nanosheets for superior lithium storage. <i>Nano Energy</i> , <b>2016</b> , 30, 347-354	17.1	94
65	Ultrathin MXene Nanosheets Decorated with TiO Quantum Dots as an Efficient Sulfur Host toward Fast and Stable Li-S Batteries. <i>Small</i> , <b>2018</b> , 14, e1802443	11	89
64	Delicate ternary heterostructures achieved by hierarchical co-assembly of Ag and Fe <sub>3</sub> O <sub>4</sub> nanoparticles on MoS <sub>2</sub> nanosheets: morphological and compositional synergy in reversible lithium storage. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 2726-2733	13	72
63	MXene-supported CoO quantum dots for superior lithium storage and oxygen evolution activities. <i>Chemical Communications</i> , <b>2019</b> , 55, 1237-1240	5.8	69
62	Hierarchical assembly of SnO <sub>2</sub> nanowires on MnO <sub>2</sub> nanosheets: a novel 1/2D hybrid architecture for high-capacity, reversible lithium storage. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 6477-6483	13	58
61	Facile and elegant self-organization of Ag nanoparticles and TiO <sub>2</sub> nanorods on V <sub>2</sub> O <sub>5</sub> nanosheets as a superior cathode material for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 4900-4907	13	53
60	Coordination-driven hierarchical assembly of silver nanoparticles on MoS <sub>2</sub> nanosheets for improved lithium storage. <i>Chemistry - an Asian Journal</i> , <b>2014</b> , 9, 1519-24	4.5	53
59	h-BN Nanosheets as 2D Substrates to Load 0D Fe <sub>3</sub> O <sub>4</sub> Nanoparticles: A Hybrid Anode Material for Lithium-Ion Batteries. <i>Chemistry - an Asian Journal</i> , <b>2016</b> , 11, 828-33	4.5	42
58	Efficient polysulfides anchoring for Li-S batteries: Combined physical adsorption and chemical conversion in V <sub>2</sub> O <sub>5</sub> hollow spheres wrapped in nitrogen-doped graphene network. <i>Chemical Engineering Journal</i> , <b>2019</b> , 378, 122189	14.7	41

57	Densification of Sm <sub>0.2</sub> Ce <sub>0.8</sub> O <sub>1.9</sub> with the addition of lithium oxide as sintering aid. <i>Journal of Power Sources</i> , <b>2013</b> , 222, 367-372	8.9	39
56	Elaborately Designed Hierarchical Heterostructures Consisting of Carbon-Coated TiO <sub>2</sub> (B) Nanosheets Decorated with Fe <sub>3</sub> O <sub>4</sub> Nanoparticles for Remarkable Synergy in High-Rate Lithium Storage. <i>Advanced Materials Interfaces</i> , <b>2015</b> , 2, 1500239	4.6	39
55	NiCo-Based Electrocatalysts for the Alkaline Oxygen Evolution Reaction: A Review. <i>ACS Catalysis</i> , 12485-12509	13.5	39
54	Creating a synergistic interplay between tubular MoS <sub>2</sub> and particulate Fe <sub>3</sub> O <sub>4</sub> for improved lithium storage. <i>Chemical Communications</i> , <b>2015</b> , 51, 11888-91	5.8	37
53	Fabrication and evaluation of anode and thin Y <sub>2</sub> O <sub>3</sub> -stabilized ZrO <sub>2</sub> film by co-tape casting and co-firing technique. <i>Journal of Power Sources</i> , <b>2010</b> , 195, 2644-2648	8.9	37
52	Hybrid Architectures based on 2D MXenes and Low-Dimensional Inorganic Nanostructures: Methods, Synergies, and Energy-Related Applications. <i>Small</i> , <b>2018</b> , 14, e1803632	11	37
51	Densification Behavior and Space Charge Blocking Effect of Bi <sub>2</sub> O <sub>3</sub> and Gd <sub>2</sub> O <sub>3</sub> Co-doped CeO <sub>2</sub> as Electrolyte for Solid Oxide Fuel Cells. <i>Electrochimica Acta</i> , <b>2015</b> , 161, 129-136	6.7	33
50	Optimization on fabrication and performance of A-site-deficient La <sub>0.58</sub> Sr <sub>0.4</sub> Co <sub>0.2</sub> Fe <sub>0.8</sub> O <sub>3-<math>\delta</math></sub> cathode for SOFC. <i>Journal of Solid State Electrochemistry</i> , <b>2009</b> , 13, 455-467	2.6	33
49	Comparison of infiltrated ceramic fiber paper and mica base compressive seals for planar solid oxide fuel cells. <i>Journal of Power Sources</i> , <b>2007</b> , 168, 447-452	8.9	33
48	Rational design of MXene@TiO nanoarray enabling dual lithium polysulfide chemisorption towards high-performance lithium-sulfur batteries. <i>Nanoscale</i> , <b>2020</b> , 12, 16678-16684	7.7	33
47	Multi-dimensionally ordered, multi-functionally integrated r-GO@TiO <sub>2</sub> (B)@Mn <sub>3</sub> O <sub>4</sub> yolk-shell superstructures for ultrafast lithium storage. <i>Nano Research</i> , <b>2016</b> , 9, 2057-2069	10	33
46	Hierarchically organized CNT@TiO <sub>2</sub> @Mn <sub>3</sub> O <sub>4</sub> nanostructures for enhanced lithium storage performance. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 17048-17055	13	32
45	Improved electrochemical performance of SrCo <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3</sub>   La <sub>0.45</sub> Ce <sub>0.55</sub> O <sub>2-<math>\delta</math></sub> composite cathodes for IT-SOFC. <i>Electrochemistry Communications</i> , <b>2007</b> , 9, 431-435	5.1	32
44	High performance BaFe <sub>1-x</sub> Bi <sub>x</sub> O <sub>3</sub> as cobalt-free cathodes for intermediate temperature solid oxide fuel cells. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 15808-15817	6.7	29
43	Enhanced cycling stability of micro-sized LiCoO <sub>2</sub> cathode by Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> coating for lithium ion battery. <i>Materials Research Bulletin</i> , <b>2010</b> , 45, 456-459	5.1	28
42	Co-sintering anode and Y <sub>2</sub> O <sub>3</sub> stabilized ZrO <sub>2</sub> thin electrolyte film for solid oxide fuel cell fabricated by co-tape casting. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 10337-10345	6.7	27
41	Boosting High-Rate Lithium Storage of V <sub>2</sub> O <sub>5</sub> Nanowires by Self-Assembly on N-Doped Graphene Nanosheets. <i>ChemElectroChem</i> , <b>2016</b> , 3, 1730-1736	4.3	26
40	Scalable production of transition metal disulphide/graphite nanoflake composites for high-performance lithium storage. <i>RSC Advances</i> , <b>2014</b> , 4, 41543-41550	3.7	25

39	Synergistically Coupling Black Phosphorus Quantum Dots with MnO Nanosheets for Efficient Electrochemical Nitrogen Reduction Under Ambient Conditions. <i>Small</i> , <b>2020</b> , 16, e1907091	11	25
38	V <sub>2</sub> O <sub>5</sub> nanoparticles confined in ThreeDimensionally organized, porous NitrogenDoped graphene frameworks: Flexible and FreeStanding cathodes for high performance lithium storage. <i>Carbon</i> , <b>2018</b> , 140, 218-226	10.4	24
37	Sintering and electrochemical performance of Y <sub>2</sub> O <sub>3</sub> -doped barium zirconate with Bi <sub>2</sub> O <sub>3</sub> as sintering aids. <i>Journal of Power Sources</i> , <b>2013</b> , 232, 219-223	8.9	21
36	Polymer electrolytes based on poly(vinylidene fluoride-co-hexafluoropropylene) with crosslinked poly(ethylene glycol) for lithium batteries. <i>Solid State Ionics</i> , <b>2009</b> , 180, 693-697	3.3	21
35	Stable anchoring and uniform distribution of SiO <sub>2</sub> nanotubes on reduced graphene oxide through electrostatic self-assembly for ultra-high lithium storage performance. <i>Carbon</i> , <b>2020</b> , 167, 835-842	10.4	20
34	Improved electrochemical performance of CuCrO <sub>2</sub> anode with CNTs as conductive agent for lithium ion batteries. <i>Materials Letters</i> , <b>2013</b> , 97, 113-116	3.3	19
33	A general way to fabricate transition metal dichalcogenide/oxide-sandwiched MXene nanosheets as flexible film anodes for high-performance lithium storage. <i>Sustainable Energy and Fuels</i> , <b>2019</b> , 3, 2577-2582	5.8	18
32	Dandelion-like CoO mesoporous nanostructures supported by a Cu foam for efficient oxygen evolution and lithium storage. <i>Chemical Communications</i> , <b>2018</b> , 54, 5138-5141	5.8	18
31	Effective AgCuO sealant for planar solid oxide fuel cells. <i>Journal of Alloys and Compounds</i> , <b>2010</b> , 496, 96-99	5.7	18
30	Novel confinement of Mn <sub>3</sub> O <sub>4</sub> nanoparticles on two-dimensional carbide enabling high-performance electrochemical synthesis of ammonia under ambient conditions. <i>Chemical Engineering Journal</i> , <b>2020</b> , 396, 125163	14.7	17
29	First-Principles Study of the Geometric and Electronic Structures of Zinc Ferrite with Vacancy Defect. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2016</b> , 47, 3753-3760	2.3	17
28	Elaborate synthesis of black tin oxide-black titanium oxide core-shell nanotubes for ultrastable and fast lithium storage. <i>Chemical Communications</i> , <b>2018</b> , 54, 4790-4793	5.8	16
27	Enhanced electrochemical performances of CuCrO <sub>2</sub> /CNTs nanocomposites anodes by in-situ hydrothermal synthesis for lithium ion batteries. <i>Materials Letters</i> , <b>2013</b> , 107, 147-149	3.3	16
26	Thin-carbon-layer-enveloped cobaltIron oxide nanocages as a high-efficiency sulfur container for LiS batteries. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 20604-20611	13	16
25	Modulating CoFe <sub>2</sub> O <sub>4</sub> nanocube with oxygen vacancy and carbon wrapper towards enhanced electrocatalytic nitrogen reduction to ammonia. <i>Applied Catalysis B: Environmental</i> , <b>2021</b> , 297, 120452	21.8	14
24	Preparation and performance of large-area La <sub>0.9</sub> Sr <sub>0.1</sub> Ga <sub>0.8</sub> Mg <sub>0.2</sub> O <sub>3</sub> electrolyte for intermediate temperature solid oxide fuel cell. <i>Journal of Power Sources</i> , <b>2010</b> , 195, 7583-7586	8.9	13
23	Improved electrochemical performance of NiO/La <sub>0.45</sub> Ce <sub>0.55</sub> O <sub>2</sub> composite anodes for IT-SOFC through the introduction of a La <sub>0.45</sub> Ce <sub>0.55</sub> O <sub>2</sub> interlayer. <i>Electrochimica Acta</i> , <b>2008</b> , 54, 862-867	6.7	13
22	From sand to fast and stable silicon anode: Synthesis of hollow Si@void@C yolk-shell microspheres by aluminothermic reduction for lithium storage. <i>Chinese Chemical Letters</i> , <b>2019</b> , 30, 610-617	8.1	12

21	Smartly Designed Hierarchical MnO @Fe O /CNT Hybrid Films as Binder-free Anodes for Superior Lithium Storage. <i>Chemistry - an Asian Journal</i> , <b>2018</b> , 13, 3027-3031	4.5	11
20	A novel Nb and Cu co-doped SrCoO <sub>3</sub> - $\lambda$ cathode for intermediate temperature solid oxide fuel cells. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 10862-10870	6.7	10
19	Integrating Co <sub>3</sub> O <sub>4</sub> nanoparticles with MnO <sub>2</sub> nanosheets as bifunctional electrocatalysts for water splitting. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 10356-10365	6.7	10
18	Delicate Ag/V <sub>2</sub> O <sub>5</sub> /TiO <sub>2</sub> ternary nanostructures as a high-performance photocatalyst. <i>Journal of Solid State Chemistry</i> , <b>2018</b> , 258, 691-694	3.3	10
17	Multi-dimensionally hierarchical self-supported Cu@Cu <sub>2</sub> +1O@Co <sub>3</sub> O <sub>4</sub> heterostructure enabling superior lithium-ion storage and electrocatalytic oxygen evolution. <i>Chemical Engineering Journal</i> , <b>2021</b> , 405, 126699	14.7	9
16	Direct Exfoliation of High-Quality, Atomically Thin MoSe <sub>2</sub> Layers in Water. <i>Advanced Sustainable Systems</i> , <b>2018</b> , 2, 1700107	5.9	9
15	Self-Standing Hybrid Film of SnO <sub>2</sub> Nanotubes and MXene as A High-Performance Anode Material for Thin Film Lithium-Ion Batteries. <i>ChemistrySelect</i> , <b>2019</b> , 4, 12099-12103	1.8	8
14	Constrained sintering of Y <sub>2</sub> O <sub>3</sub> -stabilized ZrO <sub>2</sub> electrolyte on anode substrate. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 18365-18371	6.7	8
13	Influences of synthesis route and preparation process on the electrochemical properties of Fe-doped strontium cobaltite. <i>Journal of Solid State Electrochemistry</i> , <b>2012</b> , 16, 313-319	2.6	6
12	Chemical compatibility, thermal expansion matches and electrochemical performance of SrCo <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3</sub> - $\lambda$ 0.45Ce <sub>0.55</sub> O <sub>2</sub> - $\lambda$ composite cathodes for intermediate-temperature solid oxide fuel cells. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 12549-12554	6.7	6
11	Electrochemical properties of La <sub>0.8</sub> Sr <sub>0.2</sub> FeO <sub>3</sub> - $\lambda$ 0.45Ce <sub>0.55</sub> O <sub>2</sub> - $\lambda$ composite cathodes for intermediate temperature SOFC. <i>Journal of Solid State Electrochemistry</i> , <b>2010</b> , 14, 2257-2260	2.6	6
10	Understanding the sintering temperature effect on oxygen ion conductivity in doped ceria electrolytes. <i>Ionics</i> , <b>2016</b> , 22, 1699-1708	2.7	6
9	Densification and grain growth behavior study of trivalent MO <sub>1.5</sub> (M = Gd, Bi) doped ceria systems. <i>Journal of the European Ceramic Society</i> , <b>2015</b> , 35, 2815-2821	6	5
8	Controllable construction of Ag/MoSe <sub>2</sub> hybrid architectures for efficient hydrogen evolution and advanced lithium anode. <i>Chemical Engineering Science</i> , <b>2021</b> , 233, 116404	4.4	5
7	Theoretical investigations on the geometric and electronic structures of polyacetylene molecule under the influence of external electric field. <i>EXPRESS Polymer Letters</i> , <b>2009</b> , 3, 684-691	3.4	4
6	Construction of Ag/WS <sub>2</sub> Zero/Two-Dimensional Hybrid Architectures by Self-Assembly for High-Rate Lithium Storage. <i>ChemElectroChem</i> , <b>2019</b> , 6, 4560-4564	4.3	3
5	Li <sup>+</sup> Batteries: Ultrathin MXene Nanosheets Decorated with TiO <sub>2</sub> Quantum Dots as an Efficient Sulfur Host toward Fast and Stable Li <sup>+</sup> Batteries (Small 41/2018). <i>Small</i> , <b>2018</b> , 14, 1870190	11	3
4	Cobalt-iron oxide nanotubes decorated with polyaniline as advanced cathode hosts for Li-S batteries. <i>Electrochimica Acta</i> , <b>2021</b> , 390, 138873	6.7	3

3	Hollow C@TiO <sub>2</sub> array nanospheres as efficient sulfur hosts for lithium-sulfur batteries. <i>Sustainable Energy and Fuels</i> , <b>2020</b> , 4, 5493-5497	5.8	2
2	Boosting High-Rate Lithium Storage of V <sub>2</sub> O <sub>5</sub> Nanowires by Self-Assembly on N-Doped Graphene Nanosheets. <i>ChemElectroChem</i> , <b>2016</b> , 3, 1729-1729	4.3	2
1	Cobalt-iron oxide nanoparticles anchored on carbon nanotube paper to accelerate polysulfide conversion for lithium-sulfur batteries. <i>Journal of Alloys and Compounds</i> , <b>2022</b> , 909, 164805	5.7	1