

Xiao-Dong Zhu

List of Publications by Year in descending order

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78
papers

3,669
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105849

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113399

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all docs

85
docs citations

85
times ranked

4436
citing authors

#	ARTICLE	IF	CITATIONS
1	NiCo-Based Electrocatalysts for the Alkaline Oxygen Evolution Reaction: A Review. ACS Catalysis, 2021, 11, 12485-12509.	11.3	241
2	Mechanistic understanding of the role separators playing in advanced lithium-sulfur batteries. Informa Mater, 2020, 2, 483-508.	20.1	240
3	Smart Hybridization of TiO ₂ Nanorods and Fe ₃ O ₄ Nanoparticles with Pristine Graphene Nanosheets: Hierarchically Nanoengineered Ternary Heterostructures for High-Rate Lithium Storage. Advanced Functional Materials, 2015, 25, 3341-3350.	16.0	184
4	High-performance Li ₄ Ti ₅ VxO ₁₂ (0 ≤ x ≤ 0.3) as an anode material for secondary lithium-ion battery. Electrochimica Acta, 2009, 54, 7464-7470.	5.3	163
5	Exploring the synergy of 2D MXene-supported black phosphorus quantum dots in hydrogen and oxygen evolution reactions. Journal of Materials Chemistry A, 2018, 6, 21255-21260.	10.3	163
6	A review of recent developments in the surface modification of LiMn ₂ O ₄ as cathode material of power lithium-ion battery. Ionics, 2009, 15, 779-784.	2.4	159
7	Characterization of electrical properties of GDC doped A-site deficient LSCF based composite cathode using impedance spectroscopy. Journal of Power Sources, 2007, 168, 338-345.	7.9	135
8	Ultrathin MXene Nanosheets Decorated with TiO ₂ Quantum Dots as an Efficient Sulfur Host toward Fast and Stable Li-S Batteries. Small, 2018, 14, e1802443.	10.9	130
9	Flexible and robust MoS ₂ -graphene hybrid paper cross-linked by a polymer ligand: a high-performance anode material for thin film lithium-ion batteries. Chemical Communications, 2013, 49, 10305.	4.1	122
10	Advanced electrochemical performance of Li ₄ Ti _{4.95} V _{0.05} O ₁₂ as a reversible anode material down to 0V. Journal of Power Sources, 2010, 195, 285-288.	7.9	113
11	Molecular level distribution of black phosphorus quantum dots on nitrogen-doped graphene nanosheets for superior lithium storage. Nano Energy, 2016, 30, 347-354.	16.0	110
12	MXene-supported Co ₃ O ₄ quantum dots for superior lithium storage and oxygen evolution activities. Chemical Communications, 2019, 55, 1237-1240.	4.1	101
13	Delicate ternary heterostructures achieved by hierarchical co-assembly of Ag and Fe ₃ O ₄ nanoparticles on MoS ₂ nanosheets: morphological and compositional synergy in reversible lithium storage. Journal of Materials Chemistry A, 2015, 3, 2726-2733.	10.3	78
14	Hierarchical assembly of SnO ₂ nanowires on MnO ₂ nanosheets: a novel 1/2D hybrid architecture for high-capacity, reversible lithium storage. Journal of Materials Chemistry A, 2015, 3, 6477-6483.	10.3	68
15	Hybrid Architectures based on 2D MXenes and Low-Dimensional Inorganic Nanostructures: Methods, Synergies, and Energy-Related Applications. Small, 2018, 14, e1803632.	10.9	63
16	Rational design of MXene@TiO ₂ nanoarray enabling dual lithium polysulfide chemisorption towards high-performance lithium-sulfur batteries. Nanoscale, 2020, 12, 16678-16684.	5.6	62
17	Efficient polysulfides anchoring for Li-S batteries: Combined physical adsorption and chemical conversion in V ₂ O ₅ hollow spheres wrapped in nitrogen-doped graphene network. Chemical Engineering Journal, 2019, 378, 122189.	12.7	60
18	Facile and elegant self-organization of Ag nanoparticles and TiO ₂ nanorods on V ₂ O ₅ nanosheets as a superior cathode material for lithium-ion batteries. Journal of Materials Chemistry A, 2016, 4, 4900-4907.	10.3	59

#	ARTICLE	IF	CITATIONS
19	Coordination-Driven Hierarchical Assembly of Silver Nanoparticles on MoS ₂ Nanosheets for Improved Lithium Storage. Chemistry - an Asian Journal, 2014, 9, 1519-1524.	3.4	55
20	Modulating CoFe ₂ O ₄ nanocube with oxygen vacancy and carbon wrapper towards enhanced electrocatalytic nitrogen reduction to ammonia. Applied Catalysis B: Environmental, 2021, 297, 120452.	20.2	53
21	Densification of Sm _{0.2} Ce _{0.8} O _{1.9} with the addition of lithium oxide as sintering aid. Journal of Power Sources, 2013, 222, 367-372.	7.9	48
22	BN Nanosheets as 2D Substrates to Load Fe ₃ O ₄ Nanoparticles: A Hybrid Anode Material for Lithium-Ion Batteries. Chemistry - an Asian Journal, 2016, 11, 828-833.	3.4	48
23	Synergistically Coupling Black Phosphorus Quantum Dots with MnO ₂ Nanosheets for Efficient Electrochemical Nitrogen Reduction Under Ambient Conditions. Small, 2020, 16, e1907091.	10.9	47
24	Densification Behavior and Space Charge Blocking Effect of Bi ₂ O ₃ and Gd ₂ O ₃ Co-doped CeO ₂ as Electrolyte for Solid Oxide Fuel Cells. Electrochimica Acta, 2015, 161, 129-136.	5.3	46
25	Thin-carbon-layer-enveloped cobalt-iron oxide nanocages as a high-efficiency sulfur container for Li-S batteries. Journal of Materials Chemistry A, 2020, 8, 20604-20611.	10.3	46
26	High performance BaFe _{1-x} BixO ₃ as cobalt-free cathodes for intermediate temperature solid oxide fuel cells. International Journal of Hydrogen Energy, 2017, 42, 15808-15817.	7.1	43
27	Fabrication and evaluation of anode and thin Y ₂ O ₃ -stabilized ZrO ₂ film by co-tape casting and co-firing technique. Journal of Power Sources, 2010, 195, 2644-2648.	7.9	41
28	Elaborately Designed Hierarchical Heterostructures Consisting of Carbon-Coated TiO ₂ (B) Nanosheets Decorated with Fe ₃ O ₄ Nanoparticles for Remarkable Synergy in High-Rate Lithium Storage. Advanced Materials Interfaces, 2015, 2, 1500239.	4.0	41
29	Hierarchically organized CNT@TiO ₂ @Mn ₃ O ₄ nanostructures for enhanced lithium storage performance. Journal of Materials Chemistry A, 2017, 5, 17048-17055.	10.3	41
30	Creating a synergistic interplay between tubular MoS ₂ and particulate Fe ₃ O ₄ for improved lithium storage. Chemical Communications, 2015, 51, 11888-11891.	4.1	39
31	Multi-dimensionally ordered, multi-functionally integrated r-GO@TiO ₂ (B)@Mn ₃ O ₄ yolk-shell superstructures for ultrafast lithium storage. Nano Research, 2016, 9, 2057-2069.	10.3	38
32	Comparison of infiltrated ceramic fiber paper and mica base compressive seals for planar solid oxide fuel cells. Journal of Power Sources, 2007, 168, 447-452.	7.9	36
33	Optimization on fabrication and performance of A-site-deficient La _{0.58} Sr _{0.4} Co _{0.2} Fe _{0.8} O _{3-δ} cathode for SOFC. Journal of Solid State Electrochemistry, 2009, 13, 455-467.	2.5	35
34	Co-sintering anode and Y ₂ O ₃ stabilized ZrO ₂ thin electrolyte film for solid oxide fuel cell fabricated by co-tape casting. International Journal of Hydrogen Energy, 2012, 37, 10337-10345.	7.1	35
35	Enhanced cycling stability of micro-sized LiCoO ₂ cathode by Li ₄ Ti ₅ O ₁₂ coating for lithium ion battery. Materials Research Bulletin, 2010, 45, 456-459.	5.2	30
36	Sintering and electrochemical performance of Y ₂ O ₃ -doped barium zirconate with Bi ₂ O ₃ as sintering aids. Journal of Power Sources, 2013, 232, 219-223.	7.9	30

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37	Boosting High-Rate Lithium Storage of V_2O_5 Nanowires by Self-Assembly on N-Doped Graphene Nanosheets. <i>ChemElectroChem</i> , 2016, 3, 1730-1736.	3.4	30
38	Dandelion-like Co_3O_4 mesoporous nanostructures supported by a Cu foam for efficient oxygen evolution and lithium storage. <i>Chemical Communications</i> , 2018, 54, 5138-5141.	4.1	29
39	V_2O_5 nanoparticles confined in Three-Dimensionally organized, porous Nitrogen-Doped graphene frameworks: Flexible and Free-Standing cathodes for high performance lithium storage. <i>Carbon</i> , 2018, 140, 218-226.	10.5	29
40	Stable anchoring and uniform distribution of SiO_2 nanotubes on reduced graphene oxide through electrostatic self-assembly for ultra-high lithium storage performance. <i>Carbon</i> , 2020, 167, 835-842.	10.5	28
41	Novel confinement of Mn_3O_4 nanoparticles on two-dimensional carbide enabling high-performance electrochemical synthesis of ammonia under ambient conditions. <i>Chemical Engineering Journal</i> , 2020, 396, 125163.	12.7	28
42	Integrating Co_3O_4 nanoparticles with MnO_2 nanosheets as bifunctional electrocatalysts for water splitting. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 10356-10365.	7.1	28
43	Effective Ag-CuO sealant for planar solid oxide fuel cells. <i>Journal of Alloys and Compounds</i> , 2010, 496, 96-99.	5.6	27
44	Improved electrochemical performance of $CuCrO_2$ anode with CNTs as conductive agent for lithium ion batteries. <i>Materials Letters</i> , 2013, 97, 113-116.	2.6	26
45	Scalable production of transition metal disulphide/graphite nanoflake composites for high-performance lithium storage. <i>RSC Advances</i> , 2014, 4, 41543-41550.	3.7	26
46	From sand to fast and stable silicon anode: Synthesis of hollow $Si@C$ yolk-shell microspheres by aluminothermic reduction for lithium storage. <i>Chinese Chemical Letters</i> , 2019, 30, 610-617.	8.9	26
47	A novel Nb and Cu co-doped $SrCoO_{3-x}$ cathode for intermediate temperature solid oxide fuel cells. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 10862-10870.	7.1	25
48	Polymer electrolytes based on poly(vinylidene fluoride-co-hexafluoropropylene) with crosslinked poly(ethylene glycol) for lithium batteries. <i>Solid State Ionics</i> , 2009, 180, 693-697.	2.8	23
49	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> , 2016, 47, 3753-3760.	2.2	23
50	Multi-dimensionally hierarchical self-supported $Cu@Cu_2O@Co_3O_4$ heterostructure enabling superior lithium-ion storage and electrocatalytic oxygen evolution. <i>Chemical Engineering Journal</i> , 2021, 405, 126699.	12.7	23
51	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> , 2019, 3, 2577-2582.	4.7	21
52	Enhanced electrochemical performances of $CuCrO_2@CNTs$ nanocomposites anodes by in-situ hydrothermal synthesis for lithium ion batteries. <i>Materials Letters</i> , 2013, 107, 147-149.	2.6	19
53	Cobalt-iron oxide nanotubes decorated with polyaniline as advanced cathode hosts for Li-S batteries. <i>Electrochimica Acta</i> , 2021, 390, 138873.	5.3	17
54	Preparation and performance of large-area $La_{0.9}Sr_{0.1}Ga_{0.8}Mg_{0.2}O_{3-x}$ electrolyte for intermediate temperature solid oxide fuel cell. <i>Journal of Power Sources</i> , 2010, 195, 7583-7586.	7.9	16

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55	Elaborate synthesis of black tin oxide@black titanium oxide core-shell nanotubes for ultrastable and fast lithium storage. <i>Chemical Communications</i> , 2018, 54, 4790-4793.	4.1	16
56	Smartly Designed Hierarchical MnO ₂ @Fe ₃ O ₄ /CNT Hybrid Films as Binder-free Anodes for Superior Lithium Storage. <i>Chemistry - an Asian Journal</i> , 2018, 13, 3027-3031.	3.4	16
57	Improved electrochemical performance of NiO@La _{0.45} Ce _{0.55} O ₂ composite anodes for IT-SOFC through the introduction of a La _{0.45} Ce _{0.55} O ₂ interlayer. <i>Electrochimica Acta</i> , 2008, 54, 862-867.	5.3	15
58	Self-Standing Hybrid Film of SnO ₂ Nanotubes and MXene as A High-Performance Anode Material for Thin Film Lithium-Ion Batteries. <i>ChemistrySelect</i> , 2019, 4, 12099-12103.	1.6	15
59	Direct Exfoliation of High-Quality, Atomically Thin MoSe ₂ Layers in Water. <i>Advanced Sustainable Systems</i> , 2018, 2, 1700107.	5.5	13
60	Delicate Ag/V ₂ O ₅ /TiO ₂ ternary nanostructures as a high-performance photocatalyst. <i>Journal of Solid State Chemistry</i> , 2018, 258, 691-694.	3.0	12
61	Controllable construction of Ag/MoSe ₂ hybrid architectures for efficient hydrogen evolution and advanced lithium anode. <i>Chemical Engineering Science</i> , 2021, 233, 116404.	3.9	12
62	Constrained sintering of Y ₂ O ₃ -stabilized ZrO ₂ electrolyte on anode substrate. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 18365-18371.	7.1	9
63	Cobalt-iron oxide nanoparticles anchored on carbon nanotube paper to accelerate polysulfide conversion for lithium-sulfur batteries. <i>Journal of Alloys and Compounds</i> , 2022, 909, 164805.	5.6	8
64	Chemical compatibility, thermal expansion matches and electrochemical performance of SrCo _{0.8} Fe _{0.2} O ₃ @La _{0.45} Ce _{0.55} O ₂ composite cathodes for intermediate-temperature solid oxide fuel cells. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 12549-12554.	7.1	7
65	Understanding the sintering temperature effect on oxygen ion conductivity in doped ceria electrolytes. <i>Ionics</i> , 2016, 22, 1699-1708.	2.4	7
66	Electrochemical properties of La _{0.8} Sr _{0.2} FeO ₃ @La _{0.45} Ce _{0.55} O ₂ composite cathodes for intermediate temperature SOFC. <i>Journal of Solid State Electrochemistry</i> , 2010, 14, 2257-2260.	2.5	6
67	Influences of synthesis route and preparation process on the electrochemical properties of Fe-doped strontium cobaltite. <i>Journal of Solid State Electrochemistry</i> , 2012, 16, 313-319.	2.5	6
68	Densification and grain growth behavior study of trivalent MO _{1.5} (M=Gd, Bi) doped ceria systems. <i>Journal of the European Ceramic Society</i> , 2015, 35, 2815-2821.	5.5	6
69	Hollow C@TiO ₂ array nanospheres as efficient sulfur hosts for lithium-sulfur batteries. <i>Sustainable Energy and Fuels</i> , 2020, 4, 5493-5497.	4.7	6
70	Editable 3D Micro-Supercapacitor with High Energy Density Based on Mortise-Tenon Joint Structures. <i>ACS Applied Materials & Interfaces</i> , 2023, 15, 21134-21142.	8.1	6
71	Oxygen Hole Character and Lateral Homogeneity in PrNiO ₂ + Thin Films. <i>Frontiers in Physics</i> , 2022, 9, .	2.2	5
72	Construction of Ag/WS ₂ Zero/Two-Dimensional Hybrid Architectures by Self-Assembly for High-Rate Lithium Storage. <i>ChemElectroChem</i> , 2019, 6, 4560-4564.	3.4	4

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73	A hierarchically porous TiO ₂ @C membrane with oxygen vacancies: a novel platform for enhancing the catalytic conversion of polysulfides. Dalton Transactions, 2022, 51, 2855-2862.	3.3	4
74	NaBH ₄ -induced phase transition of CoSe ₂ with abundant Se deficiency for acidic oxygen reduction to hydrogen peroxide. Rare Metals, 2024, 43, 500-510.	7.0	4
75	Construction of Pt Single-Atom and Cluster/FeOOH Synergistic Active Sites for Efficient Electrocatalytic Hydrogen Evolution Reaction. ACS Catalysis, 2024, 14, 7867-7876.	11.3	1
76	Influence of Flow Velocity of Electrolyte on Roughness and Morphology of High-speed Electroplating Deposit. ECS Transactions, 2006, 2, 59-65.	0.5	0
77	Cobalt-Iron Oxide Nanoparticles Anchored on Carbon Nanotube Paper to Accelerate Polysulfide Conversion for Lithium-Sulfur Batteries. SSRN Electronic Journal, 0, , .	0.3	0
78	The Value of Meteorological Data in Optimizing the Pattern of Physical Load—A Forecast Model of Rowing Pacing Strategy. International Journal of Environmental Research and Public Health, 2022, 19, 320.	2.7	0