Xiao-Dong Zhu

List of Publications by Year
in descending order

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78 papers	3,493 citations	126708 33 h-index	143772 57 g-index
81 all docs	81 docs citations	81 times ranked	4324 citing authors

#	Article	IF	Citations
1	Mechanistic understanding of the role separators playing in advanced lithiumâ€sulfur batteries. InformaÄnÃ-MateriÃ¡ly, 2020, 2, 483-508.	8.5	219
2	NiCo-Based Electrocatalysts for the Alkaline Oxygen Evolution Reaction: A Review. ACS Catalysis, 2021, 11, 12485-12509.	5.5	204
3	Smart Hybridization of TiO₂ Nanorods and Fe₃O₄ Nanoparticles with Pristine Graphene Nanosheets: Hierarchically Nanoengineered Ternary Heterostructures for Highâ€Rate Lithium Storage. Advanced Functional Materials, 2015, 25, 3341-3350.	7.8	183
4	High-performance Li4Ti5â^'xVxO12 (0â‰¤xâ‰¤0.3) as an anode material for secondary lithium-ion battery. Electrochimica Acta, 2009, 54, 7464-7470.	2.6	160
5	A review of recent developments in the surface modification of LiMn2O4 as cathode material of power lithium-ion battery. Ionics, 2009, 15, 779-784.	1.2	154
6	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.	5.2	151
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.	4.0	130
8	Ultrathin MXene Nanosheets Decorated with TiO₂ Quantum Dots as an Efficient Sulfur Host toward Fast and Stable Liâ€“S Batteries. Small, 2018, 14, e1802443.	5.2	125
9	Flexible and robust MoS2â€“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.	2.2	122
10	Advanced electrochemical performance of Li4Ti4.95V0.05O12 as a reversible anode material down to 0V. Journal of Power Sources, 2010, 195, 285-288.	4.0	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.	8.2	107
12	MXene-supported Co₃O₄quantum dots for superior lithium storage and oxygen evolution activities. Chemical Communications, 2019, 55, 1237-1240.	2.2	94
13	Delicate ternary heterostructures achieved by hierarchical co-assembly of Ag and Fe₃O₄ nanoparticles on MoS₂ nanosheets: morphological and compositional synergy in reversible lithium storage. Journal of Materials Chemistry A, 2015, 3, 2726-2733.	5.2	76
14	Hierarchical assembly of SnO₂ nanowires on MnO₂ nanosheets: a novel 1/2D hybrid architecture for high-capacity, reversible lithium storage. Journal of Materials Chemistry A, 2015, 3, 6477-6483.	5.2	66
15	Facile and elegant self-organization of Ag nanoparticles and TiO2 nanorods on V2O5 nanosheets as a superior cathode material for lithium-ion batteries. Journal of Materials Chemistry A, 2016, 4, 4900-4907.	5.2	58
16	Efficient polysulfides anchoring for Li-S batteries: Combined physical adsorption and chemical conversion in V2O5 hollow spheres wrapped in nitrogen-doped graphene network. Chemical Engineering Journal, 2019, 378, 122189.	6.6	57
17	Coordinationâ€Driven Hierarchical Assembly of Silver Nanoparticles on MoS₂ Nanosheets for Improved Lithium Storage. Chemistry - an Asian Journal, 2014, 9, 1519-1524.	1.7	55
18	Rational design of MXene@TiO₂ nanoarray enabling dual lithium polysulfide chemisorption towards high-performance lithiumâ€“sulfur batteries. Nanoscale, 2020, 12, 16678-16684.	2.8	55

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19	Hybrid Architectures based on 2D MXenes and Lowâ€Dimensional Inorganic Nanostructures: Methods, Synergies, and Energyâ€Related Applications. Small, 2018, 14, e1803632.	5.2	54
20	hâ€BN Nanosheets as 2D Substrates to Load 0D Fe₃O₄ Nanoparticles: A Hybrid Anode Material for Lithiumâ€Ion Batteries. Chemistry - an Asian Journal, 2016, 11, 828-833.	1.7	48
21	Densification of Sm0.2Ce0.8O1.9 with the addition of lithium oxide as sintering aid. Journal of Power Sources, 2013, 222, 367-372.	4.0	47
22	High performance BaFe1â^'xBixO3â^'Î´ as cobalt-free cathodes for intermediate temperature solid oxide fuel cells. International Journal of Hydrogen Energy, 2017, 42, 15808-15817.	3.8	42
23	Thin-carbon-layer-enveloped cobaltâ€“iron oxide nanocages as a high-efficiency sulfur container for Liâ€“S batteries. Journal of Materials Chemistry A, 2020, 8, 20604-20611.	5.2	42
24	Synergistically Coupling Black Phosphorus Quantum Dots with MnO₂ Nanosheets for Efficient Electrochemical Nitrogen Reduction Under Ambient Conditions. Small, 2020, 16, e1907091.	5.2	42
25	Modulating CoFe2O4 nanocube with oxygen vacancy and carbon wrapper towards enhanced electrocatalytic nitrogen reduction to ammonia. Applied Catalysis B: Environmental, 2021, 297, 120452.	10.8	42
26	Fabrication and evaluation of anode and thin Y2O3-stabilized ZrO2 film by co-tape casting and co-firing technique. Journal of Power Sources, 2010, 195, 2644-2648.	4.0	41
27	Elaborately Designed Hierarchical Heterostructures Consisting of Carbonâ€Coated TiO₂(B) Nanosheets Decorated with Fe₃O₄ Nanoparticles for Remarkable Synergy in Highâ€Rate Lithium Storage. Advanced Materials Interfaces, 2015, 2, 1500239.	1.9	41
28	Densification Behavior and Space Charge Blocking Effect of Bi2O3 and Gd2O3 Co-doped CeO2 as Electrolyte for Solid Oxide Fuel Cells. Electrochimica Acta, 2015, 161, 129-136.	2.6	41
29	Hierarchically organized CNT@TiO₂@Mn₃O₄ nanostructures for enhanced lithium storage performance. Journal of Materials Chemistry A, 2017, 5, 17048-17055.	5.2	40
30	Creating a synergistic interplay between tubular MoS₂ and particulate Fe₃O₄ for improved lithium storage. Chemical Communications, 2015, 51, 11888-11891.	2.2	39
31	Multi-dimensionally ordered, multi-functionally integrated r-GO@TiO2(B)@Mn3O4 yolkâ€“membraneâ€“shell superstructures for ultrafast lithium storage. Nano Research, 2016, 9, 2057-2069.	5.8	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.	4.0	36
33	Improved electrochemical performance of SrCo0.8Fe0.2O3â^'Î´â€“La0.45Ce0.55O2â^'Î´ composite cathodes for IT-SOFC. Electrochemistry Communications, 2007, 9, 431-435.	2.3	34
34	Co-sintering anode and Y2O3 stabilized ZrO2 thin electrolyte film for solid oxide fuel cell fabricated by co-tape casting. International Journal of Hydrogen Energy, 2012, 37, 10337-10345.	3.8	34
35	Optimization on fabrication and performance of A-site-deficient La0.58Sr0.4Co0.2Fe0.8O3-Î´ cathode for SOFC. Journal of Solid State Electrochemistry, 2009, 13, 455-467.	1.2	33
36	Enhanced cycling stability of microsized LiCoO2 cathode by Li4Ti5O12 coating for lithium ion battery. Materials Research Bulletin, 2010, 45, 456-459.	2.7	30

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37	Boosting Highâ€Rate Lithium Storage of V₂O₅ Nanowires by Selfâ€Assembly on Nâ€Doped Graphene Nanosheets. ChemElectroChem, 2016, 3, 1730-1736.	1.7	30
38	Sintering and electrochemical performance of Y2O3-doped barium zirconate with Bi2O3 as sintering aids. Journal of Power Sources, 2013, 232, 219-223.	4.0	29
39	Effective Agâ€“CuO sealant for planar solid oxide fuel cells. Journal of Alloys and Compounds, 2010, 496, 96-99.	2.8	27
40	V2O5 nanoparticles confined in Threeâ^'Dimensionally organized, porous Nitrogenâ^'Doped graphene frameworks: Flexible and Freeâ^'Standing cathodes for high performance lithium storage. Carbon, 2018, 140, 218-226.	5.4	27
41	Stable anchoring and uniform distribution of SiO2 nanotubes on reduced graphene oxide through electrostatic self-assembly for ultra-high lithium storage performance. Carbon, 2020, 167, 835-842.	5.4	27
42	Scalable production of transition metal disulphide/graphite nanoflake composites for high-performance lithium storage. RSC Advances, 2014, 4, 41543-41550.	1.7	26
43	Dandelion-like Co₃O₄ mesoporous nanostructures supported by a Cu foam for efficient oxygen evolution and lithium storage. Chemical Communications, 2018, 54, 5138-5141.	2.2	26
44	Integrating Co3O4 nanoparticles with MnO2 nanosheets as bifunctional electrocatalysts for water splitting. International Journal of Hydrogen Energy, 2021, 46, 10356-10365.	3.8	26
45	From sand to fast and stable silicon anode: Synthesis of hollow Si@void@C yolkâ€“shell microspheres by aluminothermic reduction for lithium storage. Chinese Chemical Letters, 2019, 30, 610-617.	4.8	25
46	Improved electrochemical performance of CuCrO2 anode with CNTs as conductive agent for lithium ion batteries. Materials Letters, 2013, 97, 113-116.	1.3	24
47	Novel confinement of Mn3O4 nanoparticles on two-dimensional carbide enabling high-performance electrochemical synthesis of ammonia under ambient conditions. Chemical Engineering Journal, 2020, 396, 125163.	6.6	24
48	A novel Nb and Cu co-doped SrCoO3-Î´ cathode for intermediate temperature solid oxide fuel cells. International Journal of Hydrogen Energy, 2020, 45, 10862-10870.	3.8	24
49	Polymer electrolytes based on poly(vinylidene fluoride-co-hexafluoropropylene) with crosslinked poly(ethylene glycol) for lithium batteries. Solid State Ionics, 2009, 180, 693-697.	1.3	22
50	First-Principles Study of the Geometric and Electronic Structures of Zinc Ferrite with Vacancy Defect. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 3753-3760.	1.1	22
51	A general way to fabricate transition metal dichalcogenide/oxide-sandwiched MXene nanosheets as flexible film anodes for high-performance lithium storage. Sustainable Energy and Fuels, 2019, 3, 2577-2582.	2.5	20
52	Multi-dimensionally hierarchical self-supported Cu@Cu2+1O@Co3O4 heterostructure enabling superior lithium-ion storage and electrocatalytic oxygen evolution. Chemical Engineering Journal, 2021, 405, 126699.	6.6	20
53	Enhanced electrochemical performances of CuCrO2â€“CNTs nanocomposites anodes by in-situ hydrothermal synthesis for lithium ion batteries. Materials Letters, 2013, 107, 147-149.	1.3	17
54	Elaborate synthesis of black tin oxideâ€“black titanium oxide coreâ€“shell nanotubes for ultrastable and fast lithium storage. Chemical Communications, 2018, 54, 4790-4793.	2.2	16

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55	Cobalt-iron oxide nanotubes decorated with polyaniline as advanced cathode hosts for Li-S batteries. Electrochimica Acta, 2021, 390, 138873.	2.6	16
56	Improved electrochemical performance of NiOâ€“La0.45Ce0.55O2â^Î´ composite anodes for IT-SOFC through the introduction of a La0.45Ce0.55O2â^Î´ interlayer. Electrochimica Acta, 2008, 54, 862-867.	2.6	15
57	Preparation and performance of large-area La0.9Sr0.1Ga0.8Mg0.2O3â^Î´ electrolyte for intermediate temperature solid oxide fuel cell. Journal of Power Sources, 2010, 195, 7583-7586.	4.0	15
58	Smartly Designed Hierarchical MnO₂@Fe₃O₄/CNT Hybrid Films as Binderâ€free Anodes for Superior Lithium Storage. Chemistry - an Asian Journal, 2018, 13, 3027-3031.	1.7	15
59	Selfâ€Standing Hybrid Film of SnO₂ Nanotubes and MXene as A Highâ€Performance Anode Material for Thin Film Lithiumâ€Ion Batteries. ChemistrySelect, 2019, 4, 12099-12103.	0.7	14
60	Delicate Ag/V2O5/TiO2 ternary nanostructures as a high-performance photocatalyst. Journal of Solid State Chemistry, 2018, 258, 691-694.	1.4	12
61	Direct Exfoliation of Highâ€Quality, Atomically Thin MoSe₂ Layers in Water. Advanced Sustainable Systems, 2018, 2, 1700107.	2.7	11
62	Constrained sintering of Y2O3-stabilized ZrO2 electrolyte on anode substrate. International Journal of Hydrogen Energy, 2012, 37, 18365-18371.	3.8	9
63	Controllable construction of Ag/MoSe2 hybrid architectures for efficient hydrogen evolution and advanced lithium anode. Chemical Engineering Science, 2021, 233, 116404.	1.9	9
64	Chemical compatibility, thermal expansion matches and electrochemical performance of SrCo0.8Fe0.2O3â^Î´â€“La0.45Ce0.55O2â^Î´ composite cathodes for intermediate-temperature solid oxide fuel cells. International Journal of Hydrogen Energy, 2011, 36, 12549-12554.	3.8	7
65	Understanding the sintering temperature effect on oxygen ion conductivity in doped ceria electrolytes. Ionics, 2016, 22, 1699-1708.	1.2	7
66	Cobalt-iron oxide nanoparticles anchored on carbon nanotube paper to accelerate polysulfide conversion for lithium-sulfur batteries. Journal of Alloys and Compounds, 2022, 909, 164805.	2.8	7
67	Electrochemical properties of La0.8Sr0.2FeO3â€‰â^'â€‰Î´â€“La0.45Ce0.55O2â€‰â^'â€‰Î´ composite cathodes for intermediate temperature SOFC. Journal of Solid State Electrochemistry, 2010, 14, 2257-2260.	1.2	6
68	Influences of synthesis route and preparation process on the electrochemical properties of Fe-doped strontium cobaltite. Journal of Solid State Electrochemistry, 2012, 16, 313-319.	1.2	6
69	Densification and grain growth behavior study of trivalent MO1.5 (M=Gd, Bi) doped ceria systems. Journal of the European Ceramic Society, 2015, 35, 2815-2821.	2.8	6
70	Hollow C@TiO₂ array nanospheres as efficient sulfur hosts for lithiumâ€“sulfur batteries. Sustainable Energy and Fuels, 2020, 4, 5493-5497.	2.5	5
71	Construction of Ag/WS 2 Zero/Twoâ€Dimensional Hybrid Architectures by Selfâ€Assembly for Highâ€Rate Lithium Storage. ChemElectroChem, 2019, 6, 4560-4564.	1.7	4
72	Theoretical investigations on the geometric and electronic structures of polyacetylene molecule under the influence of external electric field. EXPRESS Polymer Letters, 2009, 3, 684-691.	1.1	4

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73	Li-S Batteries: Ultrathin MXene Nanosheets Decorated with TiO2 Quantum Dots as an Efficient Sulfur Host toward Fast and Stable Li-S Batteries (Small 41/2018). Small, 2018, 14, 1870190.	5.2	3
74	A hierarchically porous TiO₂@C membrane with oxygen vacancies: a novel platform for enhancing the catalytic conversion of polysulfides. Dalton Transactions, 2022, 51, 2855-2862.	1.6	3
75	Boosting High-Rate Lithium Storage of V2 O5 Nanowires by Self-Assembly on N-Doped Graphene Nanosheets. ChemElectroChem, 2016, 3, 1729-1729.	1.7	2
76	Influence of Flow Velocity of Electrolyte on Roughness and Morphology of High-speed Electrogalvazing Deposit. ECS Transactions, 2006, 2, 59-65.	0.3	0
77	Cobalt-Iron Oxide Nanoparticles Anchored on Carbon Nanotube Paper to Accelerate Polysulfide Conversion for Lithium-Sulfur Batteries. SSRN Electronic Journal, 0, , .	0.4	0
78	The Value of Meteorological Data in Optimizing the Pattern of Physical Loadâ€"A Forecast Model of Rowing Pacing Strategy. International Journal of Environmental Research and Public Health, 2022, 19, 320.	1.2	0