

Jianwei Nai

List of Publications by Year in descending order

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62
papers

7,549
citations

70961

41
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118652

62
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all docs

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docs citations

63
times ranked

8559
citing authors

#	ARTICLE	IF	CITATIONS
1	Construction of hierarchical Ni-Co-P hollow nanobricks with oriented nanosheets for efficient overall water splitting. <i>Energy and Environmental Science</i> , 2018, 11, 872-880.	15.6	773
2	Metal-Organic-Framework-Based Materials as Platforms for Renewable Energy and Environmental Applications. <i>Joule</i> , 2017, 1, 77-107.	11.7	673
3	Hollow Structures Based on Prussian Blue and Its Analogs for Electrochemical Energy Storage and Conversion. <i>Advanced Materials</i> , 2019, 31, e1706825.	11.1	445
4	Formation of Ni-Fe Mixed Diselenide Nanocages as a Superior Oxygen Evolution Electrocatalyst. <i>Advanced Materials</i> , 2017, 29, 1703870.	11.1	428
5	Ultrathin amorphous cobalt-vanadium hydr(oxy)oxide catalysts for the oxygen evolution reaction. <i>Energy and Environmental Science</i> , 2018, 11, 1736-1741.	15.6	310
6	Efficient Electrocatalytic Water Oxidation by Using Amorphous Ni-Co Double Hydroxides Nanocages. <i>Advanced Energy Materials</i> , 2015, 5, 1401880.	10.2	307
7	Pearson's Principle Inspired Generalized Strategy for the Fabrication of Metal Hydroxide and Oxide Nanocages. <i>Journal of the American Chemical Society</i> , 2013, 135, 16082-16091.	6.6	284
8	Rejuvenating dead lithium supply in lithium metal anodes by iodine redox. <i>Nature Energy</i> , 2021, 6, 378-387.	19.8	282
9	In Situ Construction of a Li-Enriched Interface for Stable All-Solid-State Batteries and its Origin Revealed by Cryo-TEM. <i>Advanced Materials</i> , 2020, 32, e2000223.	11.1	278
10	Atomic Sulfur Covalently Engineered Interlayers of Ti ₃ C ₂ MXene for Ultra-Fast Sodium-Ion Storage by Enhanced Pseudocapacitance. <i>Advanced Functional Materials</i> , 2019, 29, 1808107.	7.8	213
11	Construction of Hierarchical Co-Fe Oxyphosphide Microtubes for Electrocatalytic Overall Water Splitting. <i>Advanced Science</i> , 2019, 6, 1900576.	5.6	208
12	12 years roadmap of the sulfur cathode for lithium sulfur batteries (2009-2020). <i>Energy Storage Materials</i> , 2020, 30, 346-366.	9.5	189
13	A review of biomass materials for advanced lithium-sulfur batteries. <i>Chemical Science</i> , 2019, 10, 7484-7495.	3.7	180
14	Oriented assembly of anisotropic nanoparticles into frame-like superstructures. <i>Science Advances</i> , 2017, 3, e1700732.	4.7	158
15	Biomacromolecules enabled dendrite-free lithium metal battery and its origin revealed by cryo-electron microscopy. <i>Nature Communications</i> , 2020, 11, 488.	5.8	158
16	An ultrastable lithium metal anode enabled by designed metal fluoride spansules. <i>Science Advances</i> , 2020, 6, eaaz3112.	4.7	157
17	Biomass-based materials for green lithium secondary batteries. <i>Energy and Environmental Science</i> , 2021, 14, 1326-1379.	15.6	157
18	Amorphous Ni(OH) ₂ Nanoboxes: Fast Fabrication and Enhanced Sensing for Glucose. <i>Small</i> , 2013, 9, 3147-3152.	5.2	145

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19	Construction of Single-Crystalline Prussian Blue Analog Hollow Nanostructures with Tailorable Topologies. <i>CheM</i> , 2018, 4, 1967-1982.	5.8	145
20	CoO Hollow Cube/Reduced Graphene Oxide Composites with Enhanced Lithium Storage Capability. <i>Chemistry of Materials</i> , 2014, 26, 5958-5964.	3.2	135
21	Formation of NiCo ₂ V ₂ O ₈ Yolk-Shell Spheres with Enhanced Lithium Storage Properties. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 2899-2903.	7.2	131
22	The Flexibility of an Amorphous Cobalt Hydroxide Nanomaterial Promotes the Electrocatalysis of Oxygen Evolution Reaction. <i>Small</i> , 2018, 14, e1703514.	5.2	121
23	Selective Synthesis of Peapodlike Ni/Ni ₃ S ₂ Nanochains and Nickel Sulfide Hollow Chains and Their Magnetic Properties. <i>Advanced Functional Materials</i> , 2010, 20, 3678-3683.	7.8	91
24	Double-Shell C@MoS ₂ Structures Preloaded with Sulfur: An Additive Reservoir for Stable Lithium Metal Anodes. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 15839-15843.	7.2	79
25	Interfacial and Ionic Modulation of Poly (Ethylene Oxide) Electrolyte Via Localized Iodization to Enable Dendrite-Free Lithium Metal Batteries. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	77
26	A review of concepts and contributions in lithium metal anode development. <i>Materials Today</i> , 2022, 53, 173-196.	8.3	74
27	A Decade of Progress on Solid-State Electrolytes for Secondary Batteries: Advances and Contributions. <i>Advanced Functional Materials</i> , 2021, 31, 2100891.	7.8	73
28	Construction of Ni(CN) ₂ /NiSe ₂ Heterostructures by Stepwise Topochemical Pathways for Efficient Electrocatalytic Oxygen Evolution. <i>Advanced Materials</i> , 2022, 34, e2104405.	11.1	73
29	Sulfur-nitrogen co-doped porous carbon nanosheets to control lithium growth for a stable lithium metal anode. <i>Journal of Materials Chemistry A</i> , 2019, 7, 18267-18274.	5.2	71
30	Lithium ion diffusion mechanism on the inorganic components of the solid-electrolyte interphase. <i>Journal of Materials Chemistry A</i> , 2021, 9, 10251-10259.	5.2	66
31	Ordered colloidal clusters constructed by nanocrystals with valence for efficient CO ₂ photoreduction. <i>Science Advances</i> , 2019, 5, eaax5095.	4.7	62
32	Visualizing the Sensitive Lithium with Atomic Precision: Cryogenic Electron Microscopy for Batteries. <i>Accounts of Chemical Research</i> , 2021, 54, 2088-2099.	7.6	59
33	Marrying Ester Group with Lithium Salt: Cellulose-Acetate-Enabled LiF-Enriched Interface for Stable Lithium Metal Anodes. <i>Advanced Functional Materials</i> , 2021, 31, 2102228.	7.8	57
34	Empowering Metal Phosphides Anode with Catalytic Attribute toward Superior Cyclability for Lithium-Ion Storage. <i>Advanced Functional Materials</i> , 2019, 29, 1809051.	7.8	52
35	Tailoring the shape of amorphous nanomaterials: recent developments and applications. <i>Science China Materials</i> , 2015, 58, 44-59.	3.5	51
36	Silicious nanowires enabled dendrites suppression and flame retardancy for advanced lithium metal anodes. <i>Nano Energy</i> , 2021, 82, 105723.	8.2	50

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37	In-situ construction of a Mg-modified interface to guide uniform lithium deposition for stable all-solid-state batteries. <i>Journal of Energy Chemistry</i> , 2021, 55, 272-278.	7.1	49
38	A fast-ion conducting interface enabled by aluminum silicate fibers for stable Li metal batteries. <i>Chemical Engineering Journal</i> , 2021, 408, 128016.	6.6	48
39	Arrayed silk fibroin for high-performance Li metal batteries and atomic interface structure revealed by cryo-TEM. <i>Journal of Materials Chemistry A</i> , 2020, 8, 26045-26054.	5.2	47
40	Platinum nano-interlayer enhanced interface for stable all-solid-state batteries observed via cryo-transmission electron microscopy. <i>Journal of Materials Chemistry A</i> , 2020, 8, 13541-13547.	5.2	47
41	Strategies to improve the performance of phosphide anodes in sodium-ion batteries. <i>Nano Energy</i> , 2021, 90, 106475.	8.2	45
42	Synthesis of Diverse Green Carbon Nanomaterials through Fully Utilizing Biomass Carbon Source Assisted by KOH. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 24205-24211.	4.0	42
43	Soybean Protein Fiber Enabled Controllable Li Deposition and a LiF-Nanocrystal-Enriched Interface for Stable Li Metal Batteries. <i>Nano Letters</i> , 2022, 22, 1374-1381.	4.5	41
44	Armed lithium metal anodes with functional skeletons. <i>Materials Today Nano</i> , 2021, 13, 100103.	2.3	38
45	Recent development of Na metal anodes: Interphase engineering chemistries determine the electrochemical performance. <i>Chemical Engineering Journal</i> , 2021, 409, 127943.	6.6	38
46	Undervalued Roles of Binder in Modulating Solid Electrolyte Interphase Formation of Silicon-Based Anode Materials. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 45139-45148.	4.0	36
47	Cryo-Transmission Electron Microscopy for Unveiling the Sensitive Battery Materials. <i>Small Science</i> , 2021, 1, 2100055.	5.8	35
48	In-Situ Electrodeposition of Nanostructured Carbon Strengthened Interface for Stabilizing Lithium Metal Anode. <i>ACS Nano</i> , 2022, 16, 9883-9893.	7.3	34
49	Synthesis of Amorphous Ni ₂ Zn Double Hydroxide Nanocages with Excellent Electrocatalytic Activity toward Oxygen Evolution Reaction. <i>ChemNanoMat</i> , 2015, 1, 324-330.	1.5	32
50	Nickel hydroxide nanocrystals-modified glassy carbon electrodes for sensitive L-histidine detection. <i>Electrochimica Acta</i> , 2014, 116, 258-262.	2.6	30
51	Formation of Ti-Fe mixed sulfide nanoboxes for enhanced electrocatalytic oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2018, 6, 21891-21895.	5.2	27
52	Amorphous carbon-based materials as platform for advanced high-performance anodes in lithium secondary batteries. <i>Nano Research</i> , 2021, 14, 2053-2066.	5.8	26
53	Synthesis of NiSe ₂ /Fe ₃ O ₄ Nanotubes with Heteroepitaxy Configuration as a High-Efficient Oxygen Evolution Electrocatalyst. <i>Small Methods</i> , 2022, 6, e2200377.	4.6	22
54	Structure-Dependent Electrocatalysis of Ni(OH) ₂ Hourglass-Like Nanostructures Towards L-Histidine. <i>Chemistry - A European Journal</i> , 2013, 19, 501-508.	1.7	21

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55	Formation of NiCo ₂ V ₂ O ₈ Yolk-Shell Spheres with Enhanced Lithium Storage Properties. <i>Angewandte Chemie</i> , 2018, 130, 2949-2953.	1.6	17
56	Coordination Polyhedra: A Probable Basic Growth Unit in Solution for the Crystal Growth of Inorganic Nonmetallic Nanomaterials?. <i>Crystal Growth and Design</i> , 2012, 12, 2653-2661.	1.4	14
57	Facile and Universal Superhydrophobic Modification to Fabricate Waterborne, Multifunctional Nacre-Mimetic Films with Excellent Stability. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 20597-20602.	4.0	13
58	Lithiated aromatic biopolymer as high-performance organic anodes for lithium-ion storage. <i>Chemical Engineering Journal</i> , 2021, 409, 127454.	6.6	13
59	Double-Shell C@MoS ₂ Structures Preloaded with Sulfur: An Additive Reservoir for Stable Lithium Metal Anodes. <i>Angewandte Chemie</i> , 2020, 132, 15973-15977.	1.6	11
60	Enhanced stability of silver nanowire transparent conductive films against ultraviolet light illumination. <i>Nanotechnology</i> , 2021, 32, 055603.	1.3	5
61	Electrochemistry: Efficient Electrocatalytic Water Oxidation by Using Amorphous Ni-Co Double Hydroxides Nanocages (<i>Adv. Energy Mater.</i> 10/2015). <i>Advanced Energy Materials</i> , 2015, 5, .	10.2	4
62	Nanostructures: Amorphous Ni(OH) ₂ Nanoboxes: Fast Fabrication and Enhanced Sensing for Glucose (<i>Small</i> 18/2013). <i>Small</i> , 2013, 9, 3184-3184.	5.2	2