Meng Gu

List of Publications by Year
in descending order

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		6592	10424
235	21,748	79	139
papers	citations	h-index	g-index

239	239	239	21574
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mesoporous silicon sponge as an anti-pulverization structure for high-performance lithium-ion battery anodes. Nature Communications, 2014, 5, 4105.	5.8	1,160
2	Formation of the Spinel Phase in the Layered Composite Cathode Used in Li-Ion Batteries. ACS Nano, 2013, 7, 760-767.	7.3	772
3	Intragranular cracking as a critical barrier for high-voltage usage of layer-structured cathode for lithium-ion batteries. Nature Communications, 2017, 8, 14101.	5.8	654
4	Lewis Acidâ€“Base Interactions between Polysulfides and Metal Organic Framework in Lithium Sulfur Batteries. Nano Letters, 2014, 14, 2345-2352.	4.5	623
5	Controlling SEI Formation on SnSbâ€Porous Carbon Nanofibers for Improved Na Ion Storage. Advanced Materials, 2014, 26, 2901-2908.	11.1	441
6	Ultrahigh-Loading of Ir Single Atoms on NiO Matrix to Dramatically Enhance Oxygen Evolution Reaction. Journal of the American Chemical Society, 2020, 142, 7425-7433.	6.6	430
7	Simultaneously achieved temperature-insensitive high energy density and efficiency in domain engineered BaTiO3-Bi(Mg0.5Zr0.5)O3 lead-free relaxor ferroelectrics. Nano Energy, 2018, 52, 203-210.	8.2	410
8	Designing principle for Ni-rich cathode materials with high energy density for practical applications. Nano Energy, 2018, 49, 434-452.	8.2	400
9	Bismuth Nanoparticle Decorating Graphite Felt as a High-Performance Electrode for an All-Vanadium Redox Flow Battery. Nano Letters, 2013, 13, 1330-1335.	4.5	392
10	Highly stable single Pt atomic sites anchored on aniline-stacked graphene for hydrogen evolution reaction. Energy and Environmental Science, 2019, 12, 1000-1007.	15.6	392
11	Atomic layer deposited Pt-Ru dual-metal dimers and identifying their active sites for hydrogen evolution reaction. Nature Communications, 2019, 10, 4936.	5.8	371
12	Molecular engineering of dispersed nickel phthalocyanines on carbon nanotubes for selective CO2 reduction. Nature Energy, 2020, 5, 684-692.	19.8	365
13	Corrosion/Fragmentation of Layered Composite Cathode and Related Capacity/Voltage Fading during Cycling Process. Nano Letters, 2013, 13, 3824-3830.	4.5	353
14	Functioning Mechanism of AlF₃ Coating on the Li- and Mn-Rich Cathode Materials. Chemistry of Materials, 2014, 26, 6320-6327.	3.2	333
15	In Situ TEM Study of Lithiation Behavior of Silicon Nanoparticles Attached to and Embedded in a Carbon Matrix. ACS Nano, 2012, 6, 8439-8447.	7.3	321
16	Structural and Chemical Evolution of Li- and Mn-Rich Layered Cathode Material. Chemistry of Materials, 2015, 27, 1381-1390.	3.2	311
17	Nanorod Niobium Oxide as Powerful Catalysts for an All Vanadium Redox Flow Battery. Nano Letters, 2014, 14, 158-165.	4.5	279
18	Mitigating Voltage Fade in Cathode Materials by Improving the Atomic Level Uniformity of Elemental Distribution. Nano Letters, 2014, 14, 2628-2635.	4.5	273

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19	Probing the Failure Mechanism of SnO₂ Nanowires for Sodium-Ion Batteries. Nano Letters, 2013, 13, 5203-5211.	4.5	270
20	Demonstration of an Electrochemical Liquid Cell for Operando Transmission Electron Microscopy Observation of the Lithiation/Delithiation Behavior of Si Nanowire Battery Anodes. Nano Letters, 2013, 13, 6106-6112.	4.5	265
21	Highly Reversible Mg Insertion in Nanostructured Bi for Mg Ion Batteries. Nano Letters, 2014, 14, 255-260.	4.5	257
22	Realizing record high performance in n-type Bi₂Te₃-based thermoelectric materials. Energy and Environmental Science, 2020, 13, 2106-2114.	15.6	249
23	Surface-Driven Sodium Ion Energy Storage in Nanocellular Carbon Foams. Nano Letters, 2013, 13, 3909-3914.	4.5	245
24	Conflicting Roles of Nickel in Controlling Cathode Performance in Lithium Ion Batteries. Nano Letters, 2012, 12, 5186-5191.	4.5	231
25	Ionic liquid-enhanced solid state electrolyte interface (SEI) for lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2013, 1, 8464.	5.2	229
26	Nanoscale silicon as anode for Li-ion batteries: The fundamentals, promises, and challenges. Nano Energy, 2015, 17, 366-383.	8.2	228
27	Design of active nickel single-atom decorated MoS2 as a pH-universal catalyst for hydrogen evolution reaction. Nano Energy, 2018, 53, 458-467.	8.2	222
28	Inward lithium-ion breathing of hierarchically porous silicon anodes. Nature Communications, 2015, 6, 8844.	5.8	217
29	Atomically Defined Undercoordinated Active Sites for Highly Efficient CO₂ Electroreduction. Advanced Functional Materials, 2020, 30, 1907658.	7.8	210
30	A facile approach using MgCl2 to formulate high performance Mg2+ electrolytes for rechargeable Mg batteries. Journal of Materials Chemistry A, 2014, 2, 3430.	5.2	197
31	Nitrogen-coordinated single iron atom catalysts derived from metal organic frameworks for oxygen reduction reaction. Nano Energy, 2019, 61, 60-68.	8.2	192
32	Co nanoparticle embedded in atomically-dispersed Co-N-C nanofibers for oxygen reduction with high activity and remarkable durability. Nano Energy, 2018, 52, 485-493.	8.2	188
33	Reversible loss of coreâ€“shell structure for Niâ€“Au bimetallic nanoparticles during CO2 hydrogenation. Nature Catalysis, 2020, 3, 411-417.	16.1	186
34	Lithium Ion Battery Peformance of Silicon Nanowires with Carbon Skin. ACS Nano, 2014, 8, 915-922.	7.3	185
35	Highâ€Safety and Highâ€Energyâ€Density Lithium Metal Batteries in a Novel Ionicâ€Liquid Electrolyte. Advanced Materials, 2020, 32, e2001741.	11.1	176
36	Nanoscale Phase Separation, Cation Ordering, and Surface Chemistry in Pristine Li_{1.2}Ni_{0.2}Mn_{0.6}O₂for Li-Ion Batteries. Chemistry of Materials, 2013, 25, 2319-2326.	3.2	173

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37	Synergistic Catalysis between Pd and Fe in Gas Phase Hydrodeoxygenation of m-Cresol. ACS Catalysis, 2014, 4, 3335-3345.	5.5	173
38	A safe and non-flammable sodium metal battery based on an ionic liquid electrolyte. Nature Communications, 2019, 10, 3302.	5.8	173
39	Enhanced Li+ ion transport in LiNi0.5Mn1.5O4 through control of site disorder. Physical Chemistry Chemical Physics, 2012, 14, 13515.	1.3	167
40	Enhanced CO₂ Electroreduction on Neighboring Zn/Co Monomers by Electronic Effect. Angewandte Chemie - International Edition, 2020, 59, 12664-12668.	7.2	164
41	Co single-atom anchored on Co3O4 and nitrogen-doped active carbon toward bifunctional catalyst for zinc-air batteries. Applied Catalysis B: Environmental, 2020, 260, 118188.	10.8	163
42	Single Iridium Atom Doped Ni₂P Catalyst for Optimal Oxygen Evolution. Journal of the American Chemical Society, 2021, 143, 13605-13615.	6.6	162
43	Dualâ€Doping and Synergism toward Highâ€Performance Seawater Electrolysis. Advanced Materials, 2021, 33, e2101425.	11.1	161
44	Boosting the oxygen evolution reaction using defect-rich ultra-thin ruthenium oxide nanosheets in acidic media. Energy and Environmental Science, 2020, 13, 5143-5151.	15.6	159
45	Coordination Chemistry in magnesium battery electrolytes: how ligands affect their performance. Scientific Reports, 2013, 3, 3130.	1.6	157
46	Atomically dispersed Pt and Fe sites and Ptâ€“Fe nanoparticles for durable proton exchange membrane fuel cells. Nature Catalysis, 2022, 5, 503-512.	16.1	155
47	How to Obtain Reproducible Results for Lithium Sulfur Batteries?. Journal of the Electrochemical Society, 2013, 160, A2288-A2292.	1.3	149
48	Regulated Breathing Effect of Silicon Negative Electrode for Dramatically Enhanced Performance of Liâ€Ion Battery. Advanced Functional Materials, 2015, 25, 1426-1433.	7.8	149
49	Poor Stability of Li₂CO₃ in the Solid Electrolyte Interphase of a Lithiumâ€Metal Anode Revealed by Cryoâ€Electron Microscopy. Advanced Materials, 2021, 33, e2100404.	11.1	147
50	Electrocatalytic Reduction of Nitrate to Ammonia on Low-Cost Ultrathin CoO_x Nanosheets. ACS Catalysis, 2021, 11, 15135-15140.	5.5	144
51	Ultrahigh Oxygen Evolution Reaction Activity Achieved Using Ir Single Atoms on Amorphous CoO_x Nanosheets. ACS Catalysis, 2021, 11, 123-130.	5.5	138
52	Probing the Degradation Mechanisms in Electrolyte Solutions for Li-Ion Batteries by in Situ Transmission Electron Microscopy. Nano Letters, 2014, 14, 1293-1299.	4.5	137
53	Electronic Origin for the Phase Transition from Amorphous Li_xSi to Crystalline Li₁₅Si₄. ACS Nano, 2013, 7, 6303-6309.	7.3	135
54	Tuning Structural and Compositional Effects in Pdâ€“Au Nanowires for Highly Selective and Active CO₂ Electrochemical Reduction Reaction. Advanced Energy Materials, 2018, 8, 1802238.	10.2	132

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55	Covalently bonded 2D/2D O-g-C3N4/TiO2 heterojunction for enhanced visible-light photocatalytic hydrogen evolution. Applied Catalysis B: Environmental, 2018, 237, 1130-1138.	10.8	129
56	Engineering Pt and Fe dual-metal single atoms anchored on nitrogen-doped carbon with high activity and durability towards oxygen reduction reaction for zinc-air battery. Applied Catalysis B: Environmental, 2021, 286, 119891.	10.8	122
57	Nanocomposite polymer electrolyte for rechargeable magnesium batteries. Nano Energy, 2015, 12, 750-759.	8.2	121
58	Dual phase Li4Ti5O12â€“TiO2 nanowire arrays as integrated anodes for high-rate lithium-ion batteries. Nano Energy, 2014, 9, 383-391.	8.2	114
59	Single-atom catalyst for high-performance methanol oxidation. Nature Communications, 2021, 12, 5235.	5.8	113
60	Visualizing nanoscale 3D compositional fluctuation of lithium in advanced lithium-ion battery cathodes. Nature Communications, 2015, 6, 8014.	5.8	112
61	The Role of Ru in Improving the Activity of Pd toward Hydrogen Evolution and Oxidation Reactions in Alkaline Solutions. ACS Catalysis, 2019, 9, 9614-9621.	5.5	112
62	Highly active and stable ruthenate pyrochlore for enhanced oxygen evolution reaction in acidic medium electrolysis. Applied Catalysis B: Environmental, 2019, 244, 494-501.	10.8	109
63	Improving Pdâ€“Nâ€“C fuel cell electrocatalysts through fluorination-driven rearrangements of local coordination environment. Nature Energy, 2021, 6, 1144-1153.	19.8	108
64	Following the Transient Reactions in Lithiumâ€“Sulfur Batteries Using an In Situ Nuclear Magnetic Resonance Technique. Nano Letters, 2015, 15, 3309-3316.	4.5	107
65	Lithiumâ€Pretreated Hard Carbon as Highâ€Performance Sodiumâ€Ion Battery Anodes. Advanced Energy Materials, 2018, 8, 1801441.	10.2	105
66	Electrochemical Kinetics and Performance of Layered Composite Cathode Material Li[Li_{0.2}Ni_{0.2}Mn_{0.6}]O₂. Journal of the Electrochemical Society, 2013, 160, A2212-A2219.	1.3	104
67	Realizing high-efficiency power generation in low-cost PbS-based thermoelectric materials. Energy and Environmental Science, 2020, 13, 579-591.	15.6	101
68	In Situ Transmission Electron Microscopy Probing of Native Oxide and Artificial Layers on Silicon Nanoparticles for Lithium Ion Batteries. ACS Nano, 2014, 8, 11816-11823.	7.3	99
69	Revisit Carbon/Sulfur Composite for Li-S Batteries. Journal of the Electrochemical Society, 2013, 160, A1624-A1628.	1.3	98
70	Mg₃₊_{Î´}Sb_xBi_{2â€“}_x Family: A Promising Substitute for the Stateâ€ofâ€theâ€Art nâ€Type Thermoelectric Materials near Room Temperature. Advanced Functional Materials, 2019, 29, 1807235.	7.8	98
71	Bending-Induced Symmetry Breaking of Lithiation in Germanium Nanowires. Nano Letters, 2014, 14, 4622-4627.	4.5	92
72	Probing the Na metal solid electrolyte interphase via cryo-transmission electron microscopy. Nature Communications, 2021, 12, 3066.	5.8	92

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73	Controlled Nucleation and Growth Process of Li₂S₂/Li₂S in Lithium-Sulfur Batteries. Journal of the Electrochemical Society, 2013, 160, A1992-A1996.	1.3	89
74	Spontaneous repairing liquid metal/Si nanocomposite as a smart conductive-additive-free anode for lithium-ion battery. Nano Energy, 2018, 50, 359-366.	8.2	89
75	Boosting alkaline hydrogen evolution: the dominating role of interior modification in surface electrocatalysis. Energy and Environmental Science, 2020, 13, 3110-3118.	15.6	87
76	Atomistic Conversion Reaction Mechanism of WO₃ in Secondary Ion Batteries of Li, Na, and Ca. Angewandte Chemie - International Edition, 2016, 55, 6244-6247.	7.2	86
77	500 Wh kg^{â^'1} Class Li Metal Battery Enabled by a Selfâ€Organized Coreâ€“Shell Composite Anode. Advanced Materials, 2020, 32, e2004793.	11.1	86
78	A Singleâ€Step Hydrothermal Route to 3D Hierarchical Cu₂O/CuO/rGO Nanosheets as Highâ€Performance Anode of Lithiumâ€Ion Batteries. Small, 2018, 14, 1702667.	5.2	84
79	NASICON-type Na3Fe2(PO4)3 as a low-cost and high-rate anode material for aqueous sodium-ion batteries. Nano Energy, 2019, 64, 103941.	8.2	83
80	Interfacial Ferromagnetism and Exchange Bias in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>CaRuO</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mo>/</mml:mo><mml:msub><mm Physical Review Letters, 2012, 109, 197202.	2.9	82
81	Design Principles of Sodium/Potassium Protection Layer for Highâ€Power Highâ€Energy Sodium/Potassiumâ€Metal Batteries in Carbonate Electrolytes: a Case Study of Na₂Te/K₂Te. Advanced Materials, 2021, 33, e2106353.	11.1	82
82	A general strategy for preparing pyrrolic-N4 type single-atom catalysts via pre-located isolated atoms. Nature Communications, 2021, 12, 6806.	5.8	81
83	XEDS STEM tomography for 3D chemical characterization of nanoscale particles. Ultramicroscopy, 2013, 131, 24-32.	0.8	78
84	Self-Regulated Phenomenon of Inorganic Artificial Solid Electrolyte Interphase for Lithium Metal Batteries. Nano Letters, 2020, 20, 4029-4037.	4.5	78
85	Direct Evidence of Lithium-Induced Atomic Ordering in Amorphous TiO₂ Nanotubes. Chemistry of Materials, 2014, 26, 1660-1669.	3.2	75
86	Interface modifications by anion receptors for high energy lithium ion batteries. Journal of Power Sources, 2014, 250, 313-318.	4.0	74
87	Attractive In Situ Selfâ€Reconstructed Hierarchical Gradient Structure of Metallic Glass for High Efficiency and Remarkable Stability in Catalytic Performance. Advanced Functional Materials, 2019, 29, 1807857.	7.8	74
88	Direct Observation of Yolkâ€“Shell Transforming to Gold Single Atoms and Clusters with Superior Oxygen Evolution Reaction Efficiency. ACS Nano, 2019, 13, 8865-8871.	7.3	73
89	Additive stabilization of SEI on graphite observed using cryo-electron microscopy. Energy and Environmental Science, 2021, 14, 4882-4889.	15.6	73
90	Oxygen vacancy-rich MoO_{3â^'x} nanobelts for photocatalytic N₂ reduction to NH₃ in pure water. Catalysis Science and Technology, 2019, 9, 803-810.	2.1	71

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91	Electrochemical Synthesis of Ammonia from Nitrogen Under Mild Conditions: Current Status and Challenges. Electrochemical Energy Reviews, 2020, 3, 239-270.	13.1	67
92	Fabrication and Interfacial Electronic Structure of Wide Bandgap NiO and Ga₂O₃ pâ€“n Heterojunction. ACS Applied Electronic Materials, 2020, 2, 456-463.	2.0	66
93	A robust electrochemical sensing platform using carbon paste electrode modified with molecularly imprinted microsphere and its application on methyl parathion detection. Biosensors and Bioelectronics, 2018, 106, 71-77.	5.3	63
94	Phthalocyanine Precursors To Construct Atomically Dispersed Iron Electrocatalysts. ACS Catalysis, 2019, 9, 6252-6261.	5.5	61
95	N-doping induced tensile-strained Pt nanoparticles ensuring an excellent durability of the oxygen reduction reaction. Journal of Catalysis, 2020, 382, 247-255.	3.1	61
96	Ultralow Volume Change of P2â€Type Layered Oxide Cathode for Naâ€Ion Batteries with Controlled Phase Transition by Regulating Distribution of Na⁺. Angewandte Chemie - International Edition, 2021, 60, 20960-20969.	7.2	59
97	Subâ€3 nm Intermetallic Ordered Pt₃In Clusters for Oxygen Reduction Reaction. Advanced Science, 2020, 7, 1901279.	5.6	57
98	Stable cycling of mesoporous Sn4P3/SnO2@C nanosphere anode with high initial coulombic efficiency for Li-ion batteries. Energy Storage Materials, 2019, 18, 125-132.	9.5	56
99	Composition-dependent CO₂ electrochemical reduction activity and selectivity on Auâ€“Pd coreâ€“shell nanoparticles. Journal of Materials Chemistry A, 2019, 7, 16954-16961.	5.2	56
100	Biomimetic photocatalytic sulfonation of alkenes to access Î²-ketosulfones with single-atom iron site. Green Chemistry, 2020, 22, 230-237.	4.6	56
101	Surface and structural stabilities of carbon additives in high voltage lithium ion batteries. Journal of Power Sources, 2013, 227, 211-217.	4.0	55
102	Fe and N Co-Doped Porous Carbon Nanospheres with High Density of Active Sites for Efficient CO₂ Electroreduction. Journal of Physical Chemistry C, 2019, 123, 16651-16659.	1.5	54
103	A Regioselectively Oxidized 2D Bi/BiOx Lateral Nanoâ€Heterostructure for Hypoxic Photodynamic Therapy. Advanced Materials, 2021, 33, e2102562.	11.1	54
104	Mo modulation effect on the hydrogen binding energy of hexagonal-close-packed Ru for hydrogen evolution. Journal of Materials Chemistry A, 2019, 7, 2780-2786.	5.2	53
105	Anisotropic Ordering in 1Tâ€² Molybdenum and Tungsten Ditelluride Layers Alloyed with Sulfur and Selenium. ACS Nano, 2018, 12, 894-901.	7.3	52
106	Antisymmetric Magnetoresistance in a van der Waals Antiferromagnetic/Ferromagnetic Layered MnPS₃/Fe₃GeTe₂ Stacking Heterostructure. ACS Nano, 2020, 14, 12037-12044.	7.3	52
107	Electron-Rich Driven Electrochemical Solid-State Amorphization in Liâ€“Si Alloys. Nano Letters, 2013, 13, 4511-4516.	4.5	51
108	Enhanced Intercalation Dynamics and Stability of Engineered Micro/Nanoâ€Structured Electrode Materials: Vanadium Oxide Mesocrystals. Small, 2013, 9, 3880-3886.	5.2	50

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109	Surface oxygenation induced strong interaction between Pd catalyst and functional support for zincâ€“air batteries. Energy and Environmental Science, 2022, 15, 1573-1584.	15.6	49
110	Transition of the Reaction from Threeâ€Phase to Twoâ€Phase by Using a Hybrid Conductor for Highâ€Energyâ€Density Highâ€Rate Solidâ€State Liâ€O₂ Batteries. Angewandte Chemie - International Edition, 2021, 60, 5821-5826.	7.2	47
111	In-Situ Electrochemical Transmission Electron Microscopy for Battery Research. Microscopy and Microanalysis, 2014, 20, 484-492.	0.2	45
112	Formation of Interfacial Layer and Long-Term Cyclability of Liâ€“O₂ Batteries. ACS Applied Materials & Interfaces, 2014, 6, 14141-14151.	4.0	44
113	Reversible Electrochemical Interface of Mg Metal and Conventional Electrolyte Enabled by Intermediate Adsorption. ACS Energy Letters, 2020, 5, 200-206.	8.8	44
114	Mesoscale Origin of the Enhanced Cycling-Stability of the Si-Conductive Polymer Anode for Li-ion Batteries. Scientific Reports, 2014, 4, 3684.	1.6	43
115	Comparison of TiO2 and g-C3N4 2D/2D nanocomposites from three synthesis protocols for visible-light induced hydrogen evolution. Catalysis Science and Technology, 2019, 9, 75-85.	2.1	43
116	Preparation and Photoluminescence of Single-Crystalline GdVO4:Eu3+Nanorods by Hydrothermal Conversion of Gd(OH)3nanorods. Crystal Growth and Design, 2008, 8, 1422-1425.	1.4	41
117	Chromium Oxynitride Electrocatalysts for Electrochemical Synthesis of Ammonia Under Ambient Conditions. Small Methods, 2019, 3, 1800324.	4.6	41
118	Single atom surface engineering: A new strategy to boost electrochemical activities of Pt catalysts. Nano Energy, 2022, 93, 106813.	8.2	41
119	Insights into the Phase Formation Mechanism of [0.5Li₂MnO₃Â·0.5LiNi_{0.5}Mn_{0.5}O₂] Battery Materials. Journal of the Electrochemical Society, 2014, 161, A1-A5.	1.3	40
120	Single-Atom Ir-Anchored 3D Amorphous NiFe Nanowire@Nanosheets for Boosted Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2020, 12, 3539-3546.	4.0	39
121	Interrogation of the Reaction Mechanism in a Naâ€“O₂ Battery Using In Situ Transmission Electron Microscopy. ACS Nano, 2020, 14, 3669-3677.	7.3	39
122	Doping-modulated strain control of bifunctional electrocatalysis for rechargeable zincâ€“air batteries. Energy and Environmental Science, 2021, 14, 5035-5043.	15.6	39
123	Insights into the Determining Effect of Carbon Support Properties on Anchoring Active Sites in Feâ€“Nâ€“C Catalysts toward the Oxygen Reduction Reaction. ACS Catalysis, 2022, 12, 1601-1613.	5.5	39
124	In Situ TEM Observations of Sn-Containing Silicon Nanowires Undergoing Reversible Pore Formation Due to Fast Lithiation/Delithiation Kinetics. Journal of Physical Chemistry C, 2015, 119, 21889-21895.	1.5	38
125	New Insight of Pyrroleâ€Like Nitrogen for Boosting Hydrogen Evolution Activity and Stability of Pt Single Atoms. Small, 2021, 17, e2004453.	5.2	38
126	Interconnected Vertically Stacked 2D-MoS₂ for Ultrastable Cycling of Rechargeable Li-Ion Battery. ACS Applied Materials & Interfaces, 2019, 11, 20762-20769.	4.0	37

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127	High-Performance and Reactivation Characteristics of High-Quality, Graphene-Supported SnS₂ Heterojunctions for a Lithium-Ion Battery Anode. ACS Applied Materials & Interfaces, 2019, 11, 22314-22322.	4.0	37
128	Conformal three-dimensional interphase of Li metal anode revealed by low-dose cryoelectron microscopy. Matter, 2021, 4, 3741-3752.	5.0	37
129	Band Engineering Induced Conducting 2Hâ€Phase MoS₂ by Pdï£¿Sï£¿Re Sites Modification for Hydrogen Evolution Reaction. Advanced Energy Materials, 2022, 12, .	10.2	37
130	Electrocatalytic properties of poly(3,4-ethylenedioxythiophene) (PEDOT) in Li-O2 battery. Electrochemistry Communications, 2013, 29, 63-66.	2.3	36
131	Synthesis of three-dimensional free-standing WSe₂/C hybrid nanofibers as anodes for high-capacity lithium/sodium ion batteries. Journal of Materials Chemistry A, 2019, 7, 19898-19908.	5.2	35
132	Direct atomic scale characterization of the surface structure and planar defects in the organic-inorganic hybrid CH3NH3PbI3 by Cryo-TEM. Nano Energy, 2020, 73, 104820.	8.2	35
133	Organic frameworks confined Cu single atoms and nanoclusters for tandem electrocatalytic CO₂ reduction to methane. SmartMat, 2022, 3, 183-193.	6.4	35
134	Bismuth Ferrite as an Electrocatalyst for the Electrochemical Nitrate Reduction. Nano Letters, 2022, 22, 5600-5606.	4.5	35
135	Direct Mapping of Charge Distribution during Lithiation of Ge Nanowires Using Off-Axis Electron Holography. Nano Letters, 2016, 16, 3748-3753.	4.5	34
136	Solid-State Synthesis of Highly Dispersed Nitrogen-Coordinated Single Iron Atom Electrocatalysts for Proton Exchange Membrane Fuel Cells. Nano Letters, 2021, 21, 3633-3639.	4.5	32
137	Photocatalytic degradation of methylene blue (MB) with Cu₁â€“ZnO single atom catalysts on graphene-coated flexible substrates. Journal of Materials Chemistry A, 2022, 10, 6231-6241.	5.2	32
138	Long lasting phosphorescence of Gd2O2S:Eu,Ti,Mg nanorods via a hydrothermal routine. Journal of Alloys and Compounds, 2008, 465, 367-374.	2.8	30
139	Failure mechanism of Au@Co9S8 yolk-shell anode in Li-ion batteries unveiled by in-situ transmission electron microscopy. Applied Physics Letters, 2019, 114, .	1.5	30
140	Wavelength-Dependent Solar N ₂ Fixation into Ammonia and Nitrate in Pure Water. Research, 2020, 2020, 3750314.	2.8	30
141	Strain Accommodation by Facile WO₆ Octahedral Distortion and Tilting during WO₃ Heteroepitaxy on SrTiO₃(001). ACS Applied Materials & Interfaces, 2014, 6, 14253-14258.	4.0	29
142	Creation and Ordering of Oxygen Vacancies at WO_{3âˆ’Î´} and Perovskite Interfaces. ACS Applied Materials & Interfaces, 2018, 10, 17480-17486.	4.0	29
143	Single-atom Bi-anchored Au hydrogels with specifically boosted peroxidase-like activity for cascade catalysis and sensing. Sensors and Actuators B: Chemical, 2021, 343, 130108.	4.0	29
144	3D nitrogen-doped graphite foam@Prussian blue: an electrochemical sensing platform for highly sensitive determination of H2O2 and glucose. Mikrochimica Acta, 2018, 185, 86.	2.5	28

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145	Interface energy band alignment at the all-transparent p-n heterojunction based on NiO and BaSnO3. Applied Physics Letters, 2018, 112, .	1.5	28
146	Revealing the Intrinsic Atomic Structure and Chemistry of Amorphous LiO₂-Containing Products in Liâ€“O₂ Batteries Using Cryogenic Electron Microscopy. Journal of the American Chemical Society, 2022, 144, 2129-2136.	6.6	28
147	Ultrathin polycrystalline Co3O4 nanosheets with enriched oxygen vacancies for efficient electrochemical oxygen evolution and 5-hydroxymethylfurfural oxidation. Applied Surface Science, 2022, 584, 152553.	3.1	28
148	Electron Transfer Governed Crystal Transformation of Tungsten Trioxide upon Li Ions Intercalation. ACS Applied Materials & Interfaces, 2016, 8, 24567-24572.	4.0	26
149	Identifying the Active Sites of a Single Atom Catalyst with pH-Universal Oxygen Reduction Reaction Activity. Cell Reports Physical Science, 2020, 1, 100115.	2.8	26
150	Ultralow Contact Resistance at an Epitaxial Metal/Oxide Heterojunction Through Interstitial Site Doping. Advanced Materials, 2013, 25, 4001-4005.	11.1	24
151	Composite nanofibers through in-situ reduction with abundant active sites as flexible and stable anode for lithium ion batteries. Composites Part B: Engineering, 2019, 161, 369-375.	5.9	24
152	Enabling Ultrastable Alkali Metal Anodes by Artificial Solid Electrolyte Interphase Fluorination. Nano Letters, 2022, 22, 4347-4353.	4.5	24
153	Atomic-scale tuning of oxygen-doped Bi₂Te_{2.7}Se_{0.3} to simultaneously enhance the Seebeck coefficient and electrical conductivity. Nanoscale, 2020, 12, 1580-1588.	2.8	23
154	Tunable Plasmon-Induced Charge Transport and Photon Absorption of Bimetallic Auâ€“Ag Nanoparticles on ZnO Photoanode for Photoelectrochemical Enhancement under Visible Light. Journal of Physical Chemistry C, 2020, 124, 14105-14117.	1.5	23
155	Enhanced CO₂ Electroreduction on Neighboring Zn/Co Monomers by Electronic Effect. Angewandte Chemie, 2020, 132, 12764-12768.	1.6	23
156	Superâ€Flexible Freestanding BiMnO₃ Membranes with Stable Ferroelectricity and Ferromagnetism. Advanced Science, 2021, 8, e2102178.	5.6	23
157	Atomistic Conversion Reaction Mechanism of WO₃ in Secondary Ion Batteries of Li, Na, and Ca. Angewandte Chemie, 2016, 128, 6352-6355.	1.6	21
158	Resonant x-ray reflectivity study of perovskite oxide superlattices. Applied Physics Letters, 2011, 99, 201908.	1.5	20
159	Enhancing the lithiation rate of silicon nanowires by the inclusion of tin. RSC Advances, 2014, 4, 42022-42028.	1.7	20
160	Fast Zn2+ kinetics of vanadium oxide nanotubes in high-performance rechargeable zinc-ion batteries. Journal of Power Sources, 2020, 451, 227767.	4.0	20
161	Cryoâ€Electron Tomography of Highly Deformable and Adherent Solidâ€Electrolyte Interphase Exoskeleton in Liâ€Metal Batteries with Etherâ€Based Electrolyte. Advanced Materials, 2022, 34, e2108252.	11.1	20
162	Electric Polarization Switching on an Atomically Thin Metallic Oxide. Nano Letters, 2021, 21, 144-150.	4.5	19

#	Article	IF	Citations
163	Enabling Atomicâ€Scale Imaging of Sensitive Potassium Metal and Related Solid Electrolyte Interphases Using Ultralowâ€Dose Cryoâ€TEM. Advanced Materials, 2021, 33, e2102666.	11.1	19
164	Ternary PtPdCu Multicubes as a Highly Active and Durable Catalyst toward the Oxygen Reduction Reaction. ChemElectroChem, 2018, 5, 1345-1349.	1.7	18
165	Revealing the Chemical and Structural Evolution of V2O5 Nanoribbons in Lithium-Ion Batteries Using in Situ Transmission Electron Microscopy. Analytical Chemistry, 2019, 91, 11055-11062.	3.2	18
166	Probing the electrochemical evolutions of Naâ€“CO2 nanobatteries on Pt@NCNT cathodes using in-situ environmental TEM. Energy Storage Materials, 2020, 33, 88-94.	9.5	17
167	Gas-assisted transformation of gold from fcc to the metastable 4H phase. Nature Communications, 2020, 11, 552.	5.8	17
168	Ten Thousand-Cycle Ultrafast Energy Storage of Wadsleyâ€“Roth Phase Feâ€“Nb Oxides with a Desolvation Promoting Interfacial Layer. Nano Letters, 2021, 21, 9675-9683.	4.5	17
169	The effect of interfacial charge transfer on ferromagnetism in perovskite oxide superlattices. Journal of Applied Physics, 2012, 111, .	1.1	16
170	Ultrahigh Malleability of the Lithiation-Induced Li_xSi Phase. ACS Applied Energy Materials, 2018, 1, 4211-4220.	2.5	16
171	Real-Time Imaging of the Electrochemical Process in Naâ€“O₂ Nanobatteries Using Pt@CNT and Pt_{0.8}Ir_{0.2}@CNT Air Cathodes. ACS Nano, 2019, 13, 14399-14407.	7.3	16
172	Phase Modulation and Chemical Activation of MoSe₂ by Phosphorus for Electrocatalytic Hydrogen Evolution Reaction. Energy Technology, 2020, 8, 1901503.	1.8	16
173	Tuning magnetic and transport properties through strain engineering in La0.7Sr0.3MnO3/La0.5Sr0.5TiO3 superlattices. Journal of Applied Physics, 2012, 111, 084906.	1.1	15
174	Probing the failure mechanism of nanoscale LiFePO4 for Li-ion batteries. Applied Physics Letters, 2015, 106, 203902.	1.5	15
175	CO Gas Induced Phase Separation in PtPb@Pt Catalyst and Formation of Ultrathin Pb Nanosheets Probed by In Situ Transmission Electron Microscopy. Small, 2019, 15, e1903122.	5.2	15
176	Studies on the Sodium Storage Performances of Na₃Al_xV_{2â€“x}(PO₄)₃@C Composites from Calculations and Experimental Analysis. ACS Applied Energy Materials, 2021, 4, 1120-1129.	2.5	15
177	Ultralow Volume Change of P2â€Type Layered Oxide Cathode for Naâ€Ion Batteries with Controlled Phase Transition by Regulating Distribution of Na⁺. Angewandte Chemie, 2021, 133, 21128-21137.	1.6	15
178	Ultra-stable 4H-gold nanowires up to 800 Â°C in a vacuum. Journal of Materials Chemistry A, 2019, 7, 23812-23817.	5.2	14
179	Transition of the Reaction from Threeâ€Phase to Twoâ€Phase by Using a Hybrid Conductor for Highâ€Energyâ€Density Highâ€Rate Solidâ€State Liâ€O₂ Batteries. Angewandte Chemie, 2021, 133, 5885-5890.	1.6	14
180	Yolkâ€“Shell Antimony/Carbon: Scalable Synthesis and Structural Stability Study in Sodium Ion Batteries. Advanced Functional Materials, 2022, 32, .	7.8	14

#	Article	IF	Citations
181	Extension of Compositional Space to the Ternary in Alloy Chiral Nanoparticles through Galvanic Replacement Reactions. Advanced Science, 2020, 7, 2001321.	5.6	13
182	Phase-Controlled Synthesis of 2H/3R-MoSe₂ Nanosheets on P-Doped Carbon for Synergistic Hydrogen Evolution. ACS Applied Nano Materials, 2020, 3, 6516-6523.	2.4	13
183	Clarifying the Roles of Cobalt and Nickel in the Structural Evolution of Layered Cathodes for Sodium-Ion Batteries. Nano Letters, 2021, 21, 9619-9624.	4.5	13
184	Atomic-level correlation between the electrochemical performance of an oxygen-evolving catalyst and the effects of CeO2 functionalization. Nano Research, 2022, 15, 2994-3000.	5.8	13
185	The enhancement of thermoelectric performance of p-type Li doped Mg2Ge0.4Sn0.6 by Si addition. Scripta Materialia, 2019, 166, 122-127.	2.6	12
186	In Situ TEM of Phosphorus-Dopant-Induced Nanopore Formation in Delithiated Silicon Nanowires. ACS Applied Materials & Interfaces, 2019, 11, 17313-17320.	4.0	11
187	Atomic origin of CO-Interaction effect of PtPb@Pt catalyst revealed by in situ environmental transmission electron microscopy. Nano Energy, 2020, 76, 105099.	8.2	11
188	Characterization of electrical properties in axial Si-Ge nanowire heterojunctions using off-axis electron holography and atom-probe tomography. Journal of Applied Physics, 2016, 120, .	1.1	10
189	Lithiumâ€Ion Batteries: A Singleâ€Step Hydrothermal Route to 3D Hierarchical Cu₂O/CuO/rGO Nanosheets as Highâ€Performance Anode of Lithiumâ€Ion Batteries (Small 5/2018). Small, 2018, 14, 1870020.	5.2	10
190	MnPS3 spin-flop transition-induced anomalous Hall effect in graphite flake via van der Waals proximity coupling. Nanoscale, 2020, 12, 23266-23273.	2.8	10
191	Structural variability in La0.5Sr0.5TiO3Â±Î´ thin films. Applied Physics Letters, 2011, 99, 261907.	1.5	9
192	Stable Lithium Metal Anodes with a GaO_x Artificial Solid Electrolyte Interphase in Damp Air. ACS Applied Materials & Interfaces, 2021, 13, 21467-21473.	4.0	9
193	Morphology-Controlled Discharge Profile and Reversible Cu Extrusion and Dissolution in Biomimetic CuS. ACS Applied Materials & Interfaces, 2018, 10, 41458-41464.	4.0	8
194	Fast lithiation of NiO investigated by in situ transmission electron microscopy. Applied Physics Letters, 2019, 115, .	1.5	8
195	Ferroelectricity and Ferromagnetism Achieved via Adjusting Dimensionality in BiFeO₃/BiMnO₃ Superlattices. ACS Applied Materials & Interfaces, 2021, 13, 41315-41322.	4.0	8
196	Insight into the Activity and Selectivity of Nanostructured Copper Titanates during Electrochemical Conversion of CO₂ at Neutral pH via In Situ X-ray Absorption Spectroscopy. ACS Applied Materials & Interfaces, 2022, 14, 2742-2753.	4.0	8
197	Investigation of the influences of heat treatment on the microstructures and thermal properties of Al-20Si alloy fabricated by powder extrusion. Materials Characterization, 2020, 168, 110522.	1.9	7
198	Revealing the Fast and Durable Na⁺ Insertion Reactions in a Layered Na₃Fe₃(PO₄)₄ Anode for Aqueous Na-Ion Batteries. ACS Materials Au, 2022, 2, 63-71.	2.6	7

#	Article	IF	Citations
199	Strain relaxation defects in perovskite oxide superlattices. Journal of Materials Research, 2012, 27, 1436-1444.	1.2	6
200	Structure and radiation damage behavior of epitaxial Cr Mo1â˜ alloy thin films on MgO. Journal of Nuclear Materials, 2013, 437, 55-61.	1.3	6
201	Antisite defects in La0.7Sr0.3MnO3 and La0.7Sr0.3FeO3. Applied Physics Letters, 2013, 102, 151911.	1.5	6
202	Nickel confined in 2D earth-abundant oxide layers for highly efficient and durable oxygen evolution catalysts. Journal of Materials Chemistry A, 2020, 8, 13340-13350.	5.2	6
203	Cu3PdxN nanocrystals for efficient CO2 electrochemical reduction to methane. Electrochimica Acta, 2021, 371, 137793.	2.6	6
204	Enhanced Light Emission Performance of Mixed Cation Perovskite Filmsâ€"The Effect of Solution Stoichiometry on Crystallization. Advanced Optical Materials, 2021, 9, 2100393.	3.6	6
205	Three-dimensional visualization of lithium metal anode via low-dose cryogenic electron microscopy tomography. IScience, 2021, 24, 103418.	1.9	6
206	Yttria-stabilized zirconia crystallization in Al₂O₃/YSZ multilayers. Journal of Materials Research, 2012, 27, 939-943.	1.2	5
207	Cation uniformity and magnetic properties of La0.7Sr0.3Mn0.5Fe0.5O3 thin films. Journal of Magnetism and Magnetic Materials, 2013, 325, 69-74.	1.0	5
208	Tracing the Origin of Visible Light Enhanced Oxygen Evolution Reaction. Advanced Materials Interfaces, 2019, 6, 1801543.	1.9	5
209	Local Coordination and Ordering Engineering to Design Efficient Core-Shell Oxygen Reduction Catalysts. Journal of the Electrochemical Society, 2020, 167, 144501.	1.3	5
210	Probing atomic structure of beam-sensitive energy materials in their native states using cryogenic transmission electron microscopes. IScience, 2021, 24, 103385.	1.9	5
211	Vacancy and Composition Engineering of Manganese Hexacyanoferrate for Sodium-Ion Storage. ACS Applied Energy Materials, 2022, 5, 8547-8553.	2.5	5
212	Dominance of Interface Chemistry over the Bulk Properties in Determining the Electronic Structure of Epitaxial Metal/Perovskite Oxide Heterojunctions. Chemistry of Materials, 2015, 27, 4093-4098.	3.2	4
213	Electrochemical Synthesis of Nanostructured Metal-Doped Titanates and Investigation of Their Activity as Oxygen Evolution Photoanodes. ACS Applied Energy Materials, 2018, , .	2.5	4
214	Oneâ€Pot Synthesis of a Highly Active 3â€Dimensional Feâ˜N_xâ˜CNTs/rGO Composite Catalyst for Oxygen Reduction. ChemElectroChem, 2019, 6, 504-513.	1.7	4
215	Carbon Monoxide Gas Induced 4H-to-fcc Phase Transformation of Gold As Revealed by In-Situ Transmission Electron Microscopy. Inorganic Chemistry, 2020, 59, 14415-14423.	1.9	4
216	Twist-to-Untwist Evolution and Cation Polarization Behavior of Hybrid Halide Perovskite Nanoplatelets Revealed by Cryogenic Transmission Electron Microscopy. Journal of Physical Chemistry Letters, 2021, 12, 12187-12195.	2.1	4

#	Article	IF	Citations
217	Interfacial Reaction Dependent Performance of Hollow Carbon Nanosphere Ã¢â‚¬â€œ Sulfur Composite as a Cathode for Li-S Battery. Frontiers in Energy Research, 2015, 3, .	1.2	3
218	Atomic scale study of surface orientations and energies of Ti2O3 crystals. Applied Physics Letters, 2017, 111, .	1.5	3
219	Interface engineering to enhance the oxygen evolution reaction under light irradiation. Applied Physics Letters, 2019, 115, 103901.	1.5	3
220	Atomic origin of room-temperature two-dimensional itinerant ferromagnetism in an oxide-monolayer heterostructure. Applied Materials Today, 2021, 24, 101101.	2.3	3
221	Thermoelectrics: Mg₃₊_{Î´}Sb_xBi_{2â€“}_x Family: A Promising Substitute for the Stateâ€ofâ€theâ€Art nâ€Type Thermoelectric Materials near Room Temperature (Adv. Funct. Mater. 4/2019). Advanced Functional Materials, 2019, 29, 1970020.	7.8	2
222	Light-triggered evolution of molecular clusters toward sub-nanoscale heterojunctions with high interface density. Chemical Communications, 2019, 55, 8146-8149.	2.2	2
223	Probing the Origin of Gold Dissolution and Tunneling Across Ni₂P Shell Using in situ Transmission Electron Microscopy. ACS Applied Materials & Interfaces, 2019, 11, 46947-46952.	4.0	2
224	Dumbbell to Coreâ€“Shell Structure Transformation of Niâ€“Au Nanoparticle Driven by External Stimuli. Particle and Particle Systems Characterization, 2019, 36, 1800426.	1.2	2
225	Cryoâ€Electron Tomography of Highly Deformable and Adherent Solidâ€Electrolyte Interphase Exoskeleton in Liâ€Metal Batteries with Etherâ€Based Electrolyte (Adv. Mater. 13/2022). Advanced Materials, 2022, 34, .	11.1	2
226	Metallic Glass Catalysts: Attractive In Situ Selfâ€Reconstructed Hierarchical Gradient Structure of Metallic Glass for High Efficiency and Remarkable Stability in Catalytic Performance (Adv. Funct.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	7.8	1
227	Observing sodiation process and achieving high efficiency of yolk-shell antimony@carbon rods. Science China Materials, 2022, 65, 349-355.	3.5	1
228	Enhanced Oxygen Evolution Reaction Electrocatalysis on Co(OH)₂@MnO₂Decorated Carbon Nanoarrays: Effect of Heterostructure, Conductivity and Charge Storgae Capability. Journal of the Electrochemical Society, 2021, 168, 114515.	1.3	1
229	In-Situ TEM Study of Phase Transformation and Structural Evolution of Si-C Nanocomposite Anode for Lithium Ion Battery. Microscopy and Microanalysis, 2012, 18, 1320-1321.	0.2	0
230	Atomic Level Direct Imaging of Cation ordering and phase separation in Li1.2Ni0.2Mn0.6O2 nanoflakes. Microscopy and Microanalysis, 2012, 18, 1408-1409.	0.2	0
231	In Situ Biasing of Tapered Si-Ge NW Heterojunctions using Off-Axis Electron Holography. Microscopy and Microanalysis, 2014, 20, 256-257.	0.2	0
232	Towards Quantitative 3D Chemical Analysis in TEM Using Quadrant XEDS Detector Geometry. Microscopy and Microanalysis, 2014, 20, 762-763.	0.2	0
233	In-situ TEM Study of Internal and External Stress on Lithiation behavior of High Capacity Anode Materials with a Large Volume Change. Microscopy and Microanalysis, 2014, 20, 1536-1537.	0.2	0
234	Direct Observation of Li2O2 Nucleation and Growth with In-Situ Liquid ec-(S)TEM. Microscopy and Microanalysis, 2014, 20, 1608-1609.	0.2	0

#	Article	IF	Citations
235	Direct Observation of Electrolyte Degradation Mechanisms in Li-Ion Batteries. Microscopy and Microanalysis, 2014, 20, 1624-1625.	0.2	0