

# Huolin L Xin

## List of Publications by Year in descending order

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311  
papers

30,334  
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6254

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docs citations

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times ranked

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#	ARTICLE	IF	CITATIONS
1	Highly Crystalline Multimetallic Nanoframes with Three-Dimensional Electrocatalytic Surfaces. <i>Science</i> , 2014, 343, 1339-1343.	12.6	2,376
2	Homogeneously dispersed multimetal oxygen-evolving catalysts. <i>Science</i> , 2016, 352, 333-337.	12.6	1,948
3	Structurally ordered intermetallic platinum-cobalt core-shell nanoparticles with enhanced activity and stability as oxygen reduction electrocatalysts. <i>Nature Materials</i> , 2013, 12, 81-87.	27.5	1,768
4	Memristors with diffusive dynamics as synaptic emulators for neuromorphic computing. <i>Nature Materials</i> , 2017, 16, 101-108.	27.5	1,655
5	Surface reconstruction and chemical evolution of stoichiometric layered cathode materials for lithium-ion batteries. <i>Nature Communications</i> , 2014, 5, 3529.	12.8	1,118
6	Evolution of redox couples in Li- and Mn-rich cathode materials and mitigation of voltage fade by reducing oxygen release. <i>Nature Energy</i> , 2018, 3, 690-698.	39.5	675
7	Atomically Dispersed Molybdenum Catalysts for Efficient Ambient Nitrogen Fixation. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 2321-2325.	13.8	543
8	Theory-driven design of high-valence metal sites for water oxidation confirmed using in situ soft X-ray absorption. <i>Nature Chemistry</i> , 2018, 10, 149-154.	13.6	476
9	Facet development during platinum nanocube growth. <i>Science</i> , 2014, 345, 916-919.	12.6	429
10	Synchrotron X-ray Analytical Techniques for Studying Materials Electrochemistry in Rechargeable Batteries. <i>Chemical Reviews</i> , 2017, 117, 13123-13186.	47.7	390
11	Memristor crossbar arrays with 6-nm half-pitch and 2-nm critical dimension. <i>Nature Nanotechnology</i> , 2019, 14, 35-39.	31.5	381
12	Stable and Efficient Single-Atom Zn Catalyst for CO <sub>2</sub> Reduction to CH <sub>4</sub> . <i>Journal of the American Chemical Society</i> , 2020, 142, 12563-12567.	13.7	358
13	Diamond family of nanoparticle superlattices. <i>Science</i> , 2016, 351, 582-586.	12.6	331
14	A disordered rock salt anode for fast-charging lithium-ion batteries. <i>Nature</i> , 2020, 585, 63-67.	27.8	326
15	Amorphization activated ruthenium-tellurium nanorods for efficient water splitting. <i>Nature Communications</i> , 2019, 10, 5692.	12.8	312
16	Visualization of Electrode-Electrolyte Interfaces in LiPF <sub>6</sub> /EC/DEC Electrolyte for Lithium Ion Batteries via in Situ TEM. <i>Nano Letters</i> , 2014, 14, 1745-1750.	9.1	304
17	Pt-Decorated PdCo@Pd/C Core-Shell Nanoparticles with Enhanced Stability and Electrocatalytic Activity for the Oxygen Reduction Reaction. <i>Journal of the American Chemical Society</i> , 2010, 132, 17664-17666.	13.7	300
18	Anatomy of Ag/Hafnia-Based Selectors with 10 <sup>10</sup> Nonlinearity. <i>Advanced Materials</i> , 2017, 29, 1604457.	21.0	292

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19	Tuning Oxygen Reduction Reaction Activity via Controllable Dealloying: A Model Study of Ordered Cu <sub>3</sub> Pt/C Intermetallic Nanocatalysts. <i>Nano Letters</i> , 2012, 12, 5230-5238.	9.1	291
20	In Situ STEM-EELS Observation of Nanoscale Interfacial Phenomena in All-Solid-State Batteries. <i>Nano Letters</i> , 2016, 16, 3760-3767.	9.1	278
21	Solution-Processable Glass Li <sub>4</sub> SnS <sub>4</sub> Superionic Conductors for All-Solid-State Li-Ion Batteries. <i>Advanced Materials</i> , 2016, 28, 1874-1883.	21.0	265
22	Visualizing the 3D Internal Structure of Calcite Single Crystals Grown in Agarose Hydrogels. <i>Science</i> , 2009, 326, 1244-1247.	12.6	257
23	Surface patterning of nanoparticles with polymer patches. <i>Nature</i> , 2016, 538, 79-83.	27.8	257
24	Recent Advances of Structurally Ordered Intermetallic Nanoparticles for Electrocatalysis. <i>ACS Catalysis</i> , 2018, 8, 3237-3256.	11.2	245
25	Prescribed nanoparticle cluster architectures and low-dimensional arrays built using octahedral DNA origami frames. <i>Nature Nanotechnology</i> , 2015, 10, 637-644.	31.5	243
26	Oxygen Release Induced Chemomechanical Breakdown of Layered Cathode Materials. <i>Nano Letters</i> , 2018, 18, 3241-3249.	9.1	237
27	Sub-50-nm self-assembled nanotextures for enhanced broadband antireflection in silicon solar cells. <i>Nature Communications</i> , 2015, 6, 5963.	12.8	230
28	Porous Structured Ni-Fe-P Nanocubes Derived from a Prussian Blue Analogue as an Electrocatalyst for Efficient Overall Water Splitting. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 26134-26142.	8.0	220
29	Metal segregation in hierarchically structured cathode materials for high-energy lithium batteries. <i>Nature Energy</i> , 2016, 1, .	39.5	209
30	Promoting H <sub>2</sub> O <sub>2</sub> production via 2-electron oxygen reduction by coordinating partially oxidized Pd with defect carbon. <i>Nature Communications</i> , 2020, 11, 2178.	12.8	209
31	Lattice engineering through nanoparticle-DNA frameworks. <i>Nature Materials</i> , 2016, 15, 654-661.	27.5	198
32	Bimetallic synergy in cobalt-palladium nanocatalysts for CO oxidation. <i>Nature Catalysis</i> , 2019, 2, 78-85.	34.4	195
33	Superlattices assembled through shape-induced directional binding. <i>Nature Communications</i> , 2015, 6, 6912.	12.8	188
34	Effect of biaxial strain on the electrical and magnetic properties of (001) La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> thin films. <i>Applied Physics Letters</i> , 2009, 95, .	3.3	184
35	Altering Ligand Fields in Single-Atom Sites through Second-Shell Anion Modulation Boosts the Oxygen Reduction Reaction. <i>Journal of the American Chemical Society</i> , 2022, 144, 2197-2207.	13.7	183
36	Sub-10 nm Ta Channel Responsible for Superior Performance of a HfO <sub>2</sub> Memristor. <i>Scientific Reports</i> , 2016, 6, 28525.	3.3	177

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37	A spongy nickel-organic CO <sub>2</sub> reduction photocatalyst for nearly 100% selective CO production. <i>Science Advances</i> , 2017, 3, e1700921.	10.3	175
38	Ordered three-dimensional nanomaterials using DNA-prescribed and valence-controlled material voxels. <i>Nature Materials</i> , 2020, 19, 789-796.	27.5	172
39	Profiling the nanoscale gradient in stoichiometric layered cathode particles for lithium-ion batteries. <i>Energy and Environmental Science</i> , 2014, 7, 3077.	30.8	170
40	Aperture-scanning Fourier ptychography for 3D refocusing and super-resolution macroscopic imaging. <i>Optics Express</i> , 2014, 22, 13586.	3.4	166
41	Polymorph Evolution Mechanisms and Regulation Strategies of Lithium Metal Anode under Multiphysical Fields. <i>Chemical Reviews</i> , 2021, 121, 5986-6056.	47.7	165
42	Facile Synthesis of Carbon-Supported Pd@Co Core-Shell Nanoparticles as Oxygen Reduction Electrocatalysts and Their Enhanced Activity and Stability with Monolayer Pt Decoration. <i>Chemistry of Materials</i> , 2012, 24, 2274-2281.	6.7	163
43	Phase evolution for conversion reaction electrodes in lithium-ion batteries. <i>Nature Communications</i> , 2014, 5, 3358.	12.8	163
44	Three-Dimensional Tracking and Visualization of Hundreds of Pt@Co Fuel Cell Nanocatalysts During Electrochemical Aging. <i>Nano Letters</i> , 2012, 12, 4417-4423.	9.1	162
45	Revealing the Atomic Restructuring of Pt@Co Nanoparticles. <i>Nano Letters</i> , 2014, 14, 3203-3207.	9.1	162
46	Atomic-Resolution Spectroscopic Imaging of Ensembles of Nanocatalyst Particles Across the Life of a Fuel Cell. <i>Nano Letters</i> , 2012, 12, 490-497.	9.1	161
47	Fluorine-Anion-Modulated Electron Structure of Nickel Sulfide Nanosheet Arrays for Alkaline Hydrogen Evolution. <i>ACS Energy Letters</i> , 2019, 4, 2905-2912.	17.4	159
48	Three-dimensional crossbar arrays of self-rectifying Si/SiO <sub>2</sub> /Si memristors. <i>Nature Communications</i> , 2017, 8, 15666.	12.8	153
49	Regioselective surface encoding of nanoparticles for programmable self-assembly. <i>Nature Materials</i> , 2019, 18, 169-174.	27.5	153
50	Modulating Single-Atom Palladium Sites with Copper for Enhanced Ambient Ammonia Electrosynthesis. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 345-350.	13.8	150
51	A single-atom library for guided monometallic and concentration-complex multimetallic designs. <i>Nature Materials</i> , 2022, 21, 681-688.	27.5	145
52	Constructing FeN <sub>4</sub> /graphitic nitrogen atomic interface for high-efficiency electrochemical CO <sub>2</sub> reduction over a broad potential window. <i>CheM</i> , 2021, 7, 1297-1307.	11.7	133
53	Facet Control of Gold Nanorods. <i>ACS Nano</i> , 2016, 10, 2960-2974.	14.6	131
54	Ultrahigh-Rate and Long-Life Zinc-Metal Anodes Enabled by Self-Accelerated Cation Migration. <i>Advanced Energy Materials</i> , 2021, 11, 2100982.	19.5	131

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55	One-Nanometer-Thick Pt <sub>3</sub> Ni Bimetallic Alloy Nanowires Advanced Oxygen Reduction Reaction: Integrating Multiple Advantages into One Catalyst. ACS Catalysis, 2019, 9, 4488-4494.	11.2	126
56	Depth-Dependent Redox Behavior of LiNi <sub>0.6</sub> Mn <sub>0.2</sub> Co <sub>0.2</sub> O <sub>2</sub> . Journal of the Electrochemical Society, 2018, 165, A696-A704.	2.9	123
57	Sodiation Kinetics of Metal Oxide Conversion Electrodes: A Comparative Study with Lithiation. Nano Letters, 2015, 15, 5755-5763.	9.1	122
58	Trifunctional Single-Atomic Ru Sites Enable Efficient Overall Water Splitting and Oxygen Reduction in Acidic Media. Small, 2020, 16, e2002888.	10.0	120
59	Mesoporous CNT@TiO <sub>2</sub> -C Nanocable with Extremely Durable High Rate Capability for Lithium-Ion Battery Anodes. Scientific Reports, 2014, 4, 3729.	3.3	116
60	In Situ Observation of Oscillatory Growth of Bismuth Nanoparticles. Nano Letters, 2012, 12, 1470-1474.	9.1	114
61	Self-assembled V <sub>2</sub> O <sub>5</sub> nanosheets/reduced graphene oxide hierarchical nanocomposite as a high-performance cathode material for lithium ion batteries. Journal of Materials Chemistry A, 2013, 1, 10814.	10.3	114
62	From a ZIF-8 polyhedron to three-dimensional nitrogen doped hierarchical porous carbon: an efficient electrocatalyst for the oxygen reduction reaction. Journal of Materials Chemistry A, 2018, 6, 10731-10739.	10.3	111
63	Deciphering the Cathode-Electrolyte Interfacial Chemistry in Sodium Layered Cathode Materials. Advanced Energy Materials, 2018, 8, 1801975.	19.5	111
64	Dopant Distribution in Co-Free High-Energy Layered Cathode Materials. Chemistry of Materials, 2019, 31, 9769-9776.	6.7	110
65	Block Copolymer Self-Assembly-Directed Single-Crystal Homo- and Heteroepitaxial Nanostructures. Science, 2010, 330, 214-219.	12.6	108
66	Chemical and Structural Stability of Lithium-Ion Battery Electrode Materials under Electron Beam. Scientific Reports, 2014, 4, 5694.	3.3	108
67	Calcite Prisms from Mollusk Shells ( <i>Atrina Rigida</i> ): Swiss-Cheese-like Organic-Inorganic Single-Crystal Composites. Advanced Functional Materials, 2011, 21, 2028-2034.	14.9	104
68	Data Processing for Atomic Resolution Electron Energy Loss Spectroscopy. Microscopy and Microanalysis, 2012, 18, 667-675.	0.4	103
69	Coupled s-p-d Exchange in Facet-Controlled Pd <sub>3</sub> Pb Tripods Enhances Oxygen Reduction Catalysis. Chem, 2018, 4, 359-371.	11.7	100
70	Optimizing the ORR activity of Pd based nanocatalysts by tuning their strain and particle size. Journal of Materials Chemistry A, 2017, 5, 9867-9872.	10.3	98
71	Heteroatom (P, B, or S) incorporated NiFe-based nanocubes as efficient electrocatalysts for the oxygen evolution reaction. Journal of Materials Chemistry A, 2018, 6, 7062-7069.	10.3	98
72	High-Performance Nitrogen-Doped Intermetallic PtNi Catalyst for the Oxygen Reduction Reaction. ACS Catalysis, 2020, 10, 10637-10645.	11.2	98

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73	Transitions from Near-Surface to Interior Redox upon Lithiation in Conversion Electrode Materials. <i>Nano Letters</i> , 2015, 15, 1437-1444.	9.1	97
74	Atomically Dispersed Molybdenum Catalysts for Efficient Ambient Nitrogen Fixation. <i>Angewandte Chemie</i> , 2019, 131, 2343-2347.	2.0	95
75	Local Modulation of Single-Atomic Mn Sites for Enhanced Ambient Ammonia Electrosynthesis. <i>ACS Catalysis</i> , 2021, 11, 509-516.	11.2	93
76	One-pot synthesis of carbon coated-SnO <sub>2</sub> /graphene-sheet nanocomposite with highly reversible lithium storage capability. <i>Journal of Power Sources</i> , 2013, 232, 152-158.	7.8	91
77	Liquid-Like, Self-Healing Aluminum Oxide during Deformation at Room Temperature. <i>Nano Letters</i> , 2018, 18, 2492-2497.	9.1	91
78	Comparison between Dealloyed PtCo <sub>3</sub> and PtCu <sub>3</sub> Cathode Catalysts for Proton Exchange Membrane Fuel Cells. <i>Journal of Physical Chemistry C</i> , 2012, 116, 19877-19885.	3.1	90
79	Design of Ru-Ni diatomic sites for efficient alkaline hydrogen oxidation. <i>Science Advances</i> , 2022, 8, .	10.3	89
80	Revealing Correlation of Valence State with Nanoporous Structure in Cobalt Catalyst Nanoparticles by <i>In Situ</i> Environmental TEM. <i>ACS Nano</i> , 2012, 6, 4241-4247.	14.6	84
81	Electronic Tuning of Metal Nanoparticles for Highly Efficient Photocatalytic Hydrogen Peroxide Production. <i>ACS Catalysis</i> , 2019, 9, 626-631.	11.2	84
82	Effects of cathode electrolyte interfacial (CEI) layer on long term cycling of all-solid-state thin-film batteries. <i>Journal of Power Sources</i> , 2016, 324, 342-348.	7.8	82
83	Garnet Electrolyte Surface Degradation and Recovery. <i>ACS Applied Energy Materials</i> , 2018, 1, 7244-7252.	5.1	81
84	Structure evolution of PtCu nanoframes from disordered to ordered for the oxygen reduction reaction. <i>Applied Catalysis B: Environmental</i> , 2021, 282, 119617.	20.2	80
85	SnS <sub>2</sub> nanoparticle loaded graphene nanocomposites for superior energy storage. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 6981.	2.8	79
86	Aberration-corrected ADF-STEM depth sectioning and prospects for reliable 3D imaging in S/TEM. <i>Journal of Electron Microscopy</i> , 2009, 58, 157-165.	0.9	77
87	Recent Progress on Mesoporous Carbon Materials for Advanced Energy Conversion and Storage. <i>Particle and Particle Systems Characterization</i> , 2014, 31, 515-539.	2.3	77
88	Tailoring the Antipoisoning Performance of Pd for Formic Acid Electrooxidation via an Ordered PdBi Intermetallic. <i>ACS Catalysis</i> , 2020, 10, 9977-9985.	11.2	75
89	Characterization of the structure and chemistry of the solid-electrolyte interface by cryo-EM leads to high-performance solid-state Li-metal batteries. <i>Nature Nanotechnology</i> , 2022, 17, 768-776.	31.5	75
90	Supramolecular gel-assisted synthesis of double shelled Co@CoO@C/C nanoparticles with synergistic electrocatalytic activity for the oxygen reduction reaction. <i>Nanoscale</i> , 2016, 8, 4681-4687.	5.6	74

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91	Activating Edge-Mo of 2H-MoS <sub>2</sub> via Coordination with Pyridinic N=C for pH-Universal Hydrogen Evolution Electrocatalysis. ACS Catalysis, 2021, 11, 4486-4497.	11.2	74
92	Sulphur modulated Ni <sub>3</sub> FeN supported on N/S co-doped graphene boosts rechargeable/flexible Zn-air battery performance. Applied Catalysis B: Environmental, 2020, 274, 119086.	20.2	73
93	Coalescence in the Thermal Annealing of Nanoparticles: An in Situ STEM Study of the Growth Mechanisms of Ordered Pt=Fe Nanoparticles in a KCl Matrix. Chemistry of Materials, 2013, 25, 1436-1442.	6.7	72
94	In Situ TEM Study of Catalytic Nanoparticle Reactions in Atmospheric Pressure Gas Environment. Microscopy and Microanalysis, 2013, 19, 1558-1568.	0.4	72
95	Giant Magnetoresistive Phosphoric Acid Doped Polyaniline=Silica Nanocomposites. Journal of Physical Chemistry C, 2013, 117, 6426-6436.	3.1	70
96	Hollow=Structured Carbon=Supported Nickel Cobaltite Nanoparticles as an Efficient Bifunctional Electrocatalyst for the Oxygen Reduction and Evolution Reactions. ChemCatChem, 2016, 8, 736-742.	3.7	70
97	Single-Atom Pt Catalyst for Effective C=F Bond Activation via Hydrodefluorination. ACS Catalysis, 2018, 8, 9353-9358.	11.2	70
98	Resolving atomic-scale phase transformation and oxygen loss mechanism in ultrahigh-nickel layered cathodes for cobalt-free lithium-ion batteries. Matter, 2021, 4, 2013-2026.	10.0	69
99	Spontaneous incorporation of gold in palladium-based ternary nanoparticles makes durable electrocatalysts for oxygen reduction reaction. Nature Communications, 2016, 7, 11941.	12.8	67
100	Nitrogen and sulfur co-doping of partially exfoliated MWCNTs as 3-D structured electrocatalysts for the oxygen reduction reaction. Journal of Materials Chemistry A, 2016, 4, 5678-5684.	10.3	66
101	Effects of crystal phase and composition on structurally ordered Pt=Co=Ni/C ternary intermetallic electrocatalysts for the formic acid oxidation reaction. Journal of Materials Chemistry A, 2018, 6, 5848-5855.	10.3	66
102	Atomic rearrangement from disordered to ordered Pd-Fe nanocatalysts with trace amount of Pt decoration for efficient electrocatalysis. Nano Energy, 2018, 50, 70-78.	16.0	66
103	Solution=Grown Organic Single=Crystalline Donor=Acceptor Heterojunctions for Photovoltaics. Angewandte Chemie - International Edition, 2015, 54, 956-960.	13.8	65
104	Interrogation of bimetallic particle oxidation in three dimensions at the nanoscale. Nature Communications, 2016, 7, 13335.	12.8	65
105	Direct high-resolution mapping of electrocatalytic activity of semi-two-dimensional catalysts with single-edge sensitivity. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11618-11623.	7.1	65
106	Collective Plasmon Coupling in Gold Nanoparticle Clusters for Highly Efficient Photothermal Therapy. ACS Nano, 2022, 16, 910-920.	14.6	65
107	Explore the Effects of Microstructural Defects on Voltage Fade of Li- and Mn-Rich Cathodes. Nano Letters, 2016, 16, 5999-6007.	9.1	64
108	Boosting the electron mobility of solution-grown organic single crystals via reducing the amount of polar solvent residues. Materials Horizons, 2016, 3, 119-123.	12.2	64



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109	Self-Optimized Ligand Effect in L1 <sub>2</sub> -PtPdFe Intermetallic for Efficient and Stable Alkaline Hydrogen Oxidation Reaction. ACS Catalysis, 2020, 10, 15207-15216.	11.2	64
110	Shape-Specific Patterning of Polymer-Functionalized Nanoparticles. ACS Nano, 2017, 11, 4995-5002.	14.6	63
111	Analytic derivation of optimal imaging conditions for incoherent imaging in aberration-corrected electron microscopes. Ultramicroscopy, 2008, 108, 1454-1466.	1.9	62
112	An electrochemically stable homogeneous glassy electrolyte formed at room temperature for all-solid-state sodium batteries. Nature Communications, 2022, 13, .	12.8	62
113	Synergistic enhancement of nitrogen and sulfur co-doped graphene with carbon nanosphere insertion for the electrocatalytic oxygen reduction reaction. Journal of Materials Chemistry A, 2015, 3, 7727-7731.	10.3	61
114	Anomalous metal segregation in lithium-rich material provides design rules for stable cathode in lithium-ion battery. Nature Communications, 2019, 10, 1650.	12.8	60
115	Ambipolar charge transport of TIPS-pentacene single-crystals grown from non-polar solvents. Materials Horizons, 2015, 2, 344-349.	12.2	59
116	Nitrogen-doped carbon nanofibers derived from polypyrrole coated bacterial cellulose as high-performance electrode materials for supercapacitors and Li-ion batteries. Electrochimica Acta, 2016, 210, 130-137.	5.2	59
117	Spinel Ferrite Core-Shell Nanostructures by a Versatile Solvothermal Seed-Mediated Growth Approach and Study of Their Nanointerfaces. ACS Nano, 2017, 11, 7889-7900.	14.6	59
118	Hierarchical nickel valence gradient stabilizes high-nickel content layered cathode materials. Nature Communications, 2021, 12, 2350.	12.8	59
119	Probing microstructure and phase evolution of $\hat{1}\pm$ -MoO <sub>3</sub> nanobelts for sodium-ion batteries by in situ transmission electron microscopy. Nano Energy, 2016, 27, 447-456.	16.0	58
120	Composition-dependent electrocatalytic activities of NiFe-based selenides for the oxygen evolution reaction. Electrochimica Acta, 2018, 291, 64-72.	5.2	58
121	Atomic-resolution spectroscopic imaging of oxide interfaces. Philosophical Magazine, 2010, 90, 4731-4749.	1.6	57
122	In situ TEM probing of crystallization form-dependent sodiation behavior in ZnO nanowires for sodium-ion batteries. Nano Energy, 2016, 30, 771-779.	16.0	57
123	FeMo sub-nanoclusters/single atoms for neutral ammonia electrosynthesis. Nano Energy, 2020, 77, 105078.	16.0	56
124	Depth sectioning of individual dopant atoms with aberration-corrected scanning transmission electron microscopy. Applied Physics Letters, 2008, 92, .	3.3	55
125	Epitaxial Bi <sub>5</sub> Ti <sub>3</sub> FeO <sub>15</sub> CoFe <sub>2</sub> O <sub>4</sub> Pillar-Matrix Multiferroic Nanostructures. ACS Nano, 2013, 7, 11079-11086.	14.6	55
126	Stabilizing and Activating Metastable Nickel Nanocrystals for Highly Efficient Hydrogen Evolution Electrocatalysis. ACS Nano, 2018, 12, 11625-11631.	14.6	55



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127	Combining structurally ordered intermetallics with N-doped carbon confinement for efficient and anti-poisoning electrocatalysis. <i>Applied Catalysis B: Environmental</i> , 2020, 279, 119370.	20.2	55
128	TEMLImageNet training library and AtomSegNet deep-learning models for high-precision atom segmentation, localization, denoising, and deblurring of atomic-resolution images. <i>Scientific Reports</i> , 2021, 11, 5386.	3.3	55
129	Three-dimensional hollow-structured binary oxide particles as an advanced anode material for high-rate and long cycle life lithium-ion batteries. <i>Nano Energy</i> , 2016, 20, 212-220.	16.0	53
130	Electrolyte Regulating toward Stabilization of Cobalt-Free Ultrahigh-Nickel Layered Oxide Cathode in Lithium-Ion Batteries. <i>ACS Energy Letters</i> , 2021, 6, 1324-1332.	17.4	53
131	Nanoparticles Incorporated inside Single-Crystals: Enhanced Fluorescent Properties. <i>Chemistry of Materials</i> , 2016, 28, 7537-7543.	6.7	52
132	Accelerated Evolution of Surface Chemistry Determined by Temperature and Cycling History in Nickel-Rich Layered Cathode Materials. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 23842-23850.	8.0	52
133	One-Pot Synthesis of B/P-Codoped Co-Mo Dual-Nanowafers Electrocatalysts for Overall Water Splitting. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 20024-20033.	8.0	52
134	Rational design of three-dimensional nitrogen and phosphorus co-doped graphene nanoribbons/CNTs composite for the oxygen reduction. <i>Chinese Chemical Letters</i> , 2016, 27, 597-601.	9.0	51
135	Collisions of Ir Oxide Nanoparticles with Carbon Nanopipettes: Experiments with One Nanoparticle. <i>Analytical Chemistry</i> , 2017, 89, 2880-2885.	6.5	51
136	MCM-41 support for ultrasmall $\text{Fe}_2\text{O}_3$ nanoparticles for $\text{H}_2\text{S}$ removal. <i>Journal of Materials Chemistry A</i> , 2017, 5, 21688-21698.	10.3	51
137	A joint deep learning model to recover information and reduce artifacts in missing-wedge sinograms for electron tomography and beyond. <i>Scientific Reports</i> , 2019, 9, 12803.	3.3	51
138	Rhombohedral Ordered Intermetallic Nanocatalyst Boosts the Oxygen Reduction Reaction. <i>ACS Catalysis</i> , 2021, 11, 184-192.	11.2	51
139	Controllable construction of flower-like FeS/Fe <sub>2</sub> O <sub>3</sub> composite for lithium storage. <i>Journal of Power Sources</i> , 2018, 392, 193-199.	7.8	50
140	Sub-nm ruthenium cluster as an efficient and robust catalyst for decomposition and synthesis of ammonia: Break the "size shackles". <i>Nano Research</i> , 2018, 11, 4774-4785.	10.4	49
141	Bimetallic Nanoparticle Oxidation in Three Dimensions by Chemically Sensitive Electron Tomography and <i>in Situ</i> Transmission Electron Microscopy. <i>ACS Nano</i> , 2018, 12, 7866-7874.	14.6	49
142	Interfacing Solution-Grown C <sub>60</sub> and (3-Pyrrolinium)(CdCl <sub>3</sub> ) Single Crystals for High-Mobility Transistor-Based Memory Devices. <i>Advanced Materials</i> , 2015, 27, 4476-4480.	21.0	48
143	3D hollow structured Co <sub>2</sub> FeO <sub>4</sub> /MWCNT as an efficient non-precious metal electrocatalyst for oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2015, 3, 1601-1608.	10.3	48
144	Atomically Isolated Rh Sites within Highly Branched Rh <sub>2</sub> Sb Nanostructures Enhance Bifunctional Hydrogen Electrocatalysis. <i>Advanced Materials</i> , 2021, 33, e2105049.	21.0	48

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145	Nanostructured flexible Mg-modified $\text{LiMnPO}_4$ matrix as high-rate cathode materials for Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 2014, 2, 6368-6373.	10.3	47
146	A closer look at the physical and optical properties of gold nanostars: an experimental and computational study. <i>Nanoscale</i> , 2017, 9, 3766-3773.	5.6	47
147	Creating compressive stress at the $\text{NiOOH}/\text{NiO}$ interface for water oxidation. <i>Journal of Materials Chemistry A</i> , 2020, 8, 10747-10754.	10.3	47
148	Conformal coating of $\text{TiO}_2$ nanorods on a 3-D CNT scaffold by using a CNT film as a nanoreactor: a free-standing and binder-free Li-ion anode. <i>Journal of Materials Chemistry A</i> , 2014, 2, 2701.	10.3	46
149	Structurally ordered Pt-Zn/C series nanoparticles as efficient anode catalysts for formic acid electrooxidation. <i>Journal of Materials Chemistry A</i> , 2015, 3, 22129-22135.	10.3	46
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296	(Invited) Electro-Chemo-Mechanical Degradation of LiNiO <sub>2</sub> -Derived High-Ni-Content Cathode Materials. ECS Meeting Abstracts, 2021, MA2021-01, 74-74.	0.0	0
297	Sodiation Kinetics of Metal Oxide Conversion Electrodes: A Comparative Study with Lithiation. ECS Meeting Abstracts, 2016, , .	0.0	0
298	Highly Efficient Nitrogen and Sulfur Co-Doped Three-Dimensional Graphene-Based Nanocatalysts for the ORR. ECS Meeting Abstracts, 2016, , .	0.0	0
299	Using New Quasi in-Situ TEM Technique to Study Structural Changes of Electrode Materials for Li-Ion and Na-Ion Batteries. ECS Meeting Abstracts, 2016, , .	0.0	0
300	Ultra-Low Amount of Pt Decorated Pd-Based Nanoparticles for the Oxygen Reduction Reaction. ECS Meeting Abstracts, 2016, , .	0.0	0
301	Important Roles of Crystallinity in Voltage Fade of Li- and Mn-Rich Cathodes Exemplified By Li <sub>2</sub> Ru <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>3</sub> Studies. ECS Meeting Abstracts, 2016, , .	0.0	0
302	Molybdenum-Based Nanomaterials As High Efficient Electrocatalysts for HER. ECS Meeting Abstracts, 2016, , .	0.0	0
303	Quantitative Nanostructure Analysis of Silver Vanadium Phosphorus Oxide (Ag <sub>2</sub> VO <sub>2</sub> PO <sub>4</sub> ) Battery Material Using X-Ray and Electron Microscopy. ECS Meeting Abstracts, 2016, , .	0.0	0
304	Structural Stability of Nickel-Rich Layered Cathode Materials. ECS Meeting Abstracts, 2016, , .	0.0	0
305	Revealing Corrosion Chemistry in Lithium Ion Battery and Beyond—a Tale of Two "Cities". ECS Meeting Abstracts, 2016, , .	0.0	0
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307	(Invited) Visualizing Electrochemical Reactions at the Nanoscale By in-Situ TEM. ECS Meeting Abstracts, 2017, , .	0.0	0
308	Scanning Spreading Resistance Microscopy (SSRM): High-Resolution 2D and 3D Carrier Mapping of Semiconductor Nanostructures. , 2017, , 419-488.		0
309	Investigation of Degradation Pathway in High Ni-Content Cathode Materials at Primary and Secondary Particle Level By Multi-Scale Characterization. ECS Meeting Abstracts, 2018, , .	0.0	0
310	(Invited) Evolution of Redox Couples in Li- and Mn-Rich Cathode Materials and Mitigation of Voltage Fade by Reducing Oxygen Release. ECS Meeting Abstracts, 2019, , .	0.0	0
311	X-Ray Induced Chemical Reaction Revealed by In Situ X-Ray Diffraction and Scanning X-Ray Microscopy in 15 nm Resolution. Journal of Electrochemical Energy Conversion and Storage, 2022, 19, .	2.1	0