

Zhongxin Song

List of Publications by Citations

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300
papers

22,088
citations

80
h-index

139
g-index

313
ext. papers

27,419
ext. citations

15.1
avg, IF

7.53
L-index

#	Paper	IF	Citations
300	Platinum single-atom and cluster catalysis of the hydrogen evolution reaction. <i>Nature Communications</i> , 2016 , 7, 13638	17.4	1085
299	High oxygen-reduction activity and durability of nitrogen-doped graphene. <i>Energy and Environmental Science</i> , 2011 , 4, 760	35.4	1073
298	Understanding and recent development of carbon coating on LiFePO ₄ cathode materials for lithium-ion batteries. <i>Energy and Environmental Science</i> , 2012 , 5, 5163-5185	35.4	729
297	Recent Developments and Understanding of Novel Mixed Transition-Metal Oxides as Anodes in Lithium Ion Batteries. <i>Advanced Energy Materials</i> , 2016 , 6, 1502175	21.8	600
296	Single-atom Catalysis Using Pt/Graphene Achieved through Atomic Layer Deposition. <i>Scientific Reports</i> , 2013 , 3,	4.9	589
295	Ultrathin MoS ₂ /Nitrogen-Doped Graphene Nanosheets with Highly Reversible Lithium Storage. <i>Advanced Energy Materials</i> , 2013 , 3, 839-844	21.8	417
294	Tailoring grain boundary structures and chemistry of Ni-rich layered cathodes for enhanced cycle stability of lithium-ion batteries. <i>Nature Energy</i> , 2018 , 3, 600-605	62.3	402
293	Metal organic frameworks for energy storage and conversion. <i>Energy Storage Materials</i> , 2016 , 2, 35-62	19.4	386
292	Tin Oxide with Controlled Morphology and Crystallinity by Atomic Layer Deposition onto Graphene Nanosheets for Enhanced Lithium Storage. <i>Advanced Functional Materials</i> , 2012 , 22, 1647-1654	15.6	359
291	Olivine LiFePO ₄ : the remaining challenges for future energy storage. <i>Energy and Environmental Science</i> , 2015 , 8, 1110-1138	35.4	323
290	Layer by layer assembly of sandwiched graphene/SnO ₂ nanorod/carbon nanostructures with ultrahigh lithium ion storage properties. <i>Energy and Environmental Science</i> , 2013 , 6, 2900	35.4	318
289	An Isolated Zinc-Cobalt Atomic Pair for Highly Active and Durable Oxygen Reduction. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 2622-2626	16.4	292
288	Atomic layer deposition of solid-state electrolyte coated cathode materials with superior high-voltage cycling behavior for lithium ion battery application. <i>Energy and Environmental Science</i> , 2014 , 7, 768-778	35.4	284
287	Pt-Based electrocatalysts with high atom utilization efficiency: from nanostructures to single atoms. <i>Energy and Environmental Science</i> , 2019 , 12, 492-517	35.4	275
286	Highly stable single Pt atomic sites anchored on aniline-stacked graphene for hydrogen evolution reaction. <i>Energy and Environmental Science</i> , 2019 , 12, 1000-1007	35.4	264
285	Recent developments and insights into the understanding of Na metal anodes for Na-metal batteries. <i>Energy and Environmental Science</i> , 2018 , 11, 2673-2695	35.4	257
284	Rational Design of Hierarchical Ceramic-in-Polymer and Polymer-in-Ceramic Electrolytes for Dendrite-Free Solid-State Batteries. <i>Advanced Energy Materials</i> , 2019 , 9, 1804004	21.8	246

283	Ultrafine MoO ₂ -Carbon Microstructures Enable Ultralong-Life Power-Type Sodium Ion Storage by Enhanced Pseudocapacitance. <i>Advanced Energy Materials</i> , 2017 , 7, 1602880	21.8	237
282	From Lithium-Oxygen to Lithium-Air Batteries: Challenges and Opportunities. <i>Advanced Energy Materials</i> , 2016 , 6, 1502164	21.8	237
281	Superior Stable and Long Life Sodium Metal Anodes Achieved by Atomic Layer Deposition. <i>Advanced Materials</i> , 2017 , 29, 1606663	24	221
280	Flexible rechargeable lithium ion batteries: advances and challenges in materials and process technologies. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 10712-10738	13	216
279	Nitrogen Doping Effects on Carbon Nanotubes and the Origin of the Enhanced Electrocatalytic Activity of Supported Pt for Proton-Exchange Membrane Fuel Cells. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 3769-3776	3.8	211
278	Extremely stable platinum nanoparticles encapsulated in a zirconia nanocage by area-selective atomic layer deposition for the oxygen reduction reaction. <i>Advanced Materials</i> , 2015 , 27, 277-81	24	206
277	Structural Design of Lithium Sulfur Batteries: From Fundamental Research to Practical Application. <i>Electrochemical Energy Reviews</i> , 2018 , 1, 239-293	29.3	197
276	Promoting the Transformation of Li ₂ S to Li ₂ S ₈ : Significantly Increasing Utilization of Active Materials for High-Sulfur-Loading Li-S Batteries. <i>Advanced Materials</i> , 2019 , 31, e1901220	24	186
275	Atomic layer deposited Pt-Ru dual-metal dimers and identifying their active sites for hydrogen evolution reaction. <i>Nature Communications</i> , 2019 , 10, 4936	17.4	186
274	LiFePO ₄ /graphene as a superior cathode material for rechargeable lithium batteries: impact of stacked graphene and unfolded graphene. <i>Energy and Environmental Science</i> , 2013 , 6, 1521	35.4	183
273	Inorganic-Organic Coating via Molecular Layer Deposition Enables Long Life Sodium Metal Anode. <i>Nano Letters</i> , 2017 , 17, 5653-5659	11.5	183
272	Towards high-performance solid-state Li-S batteries: from fundamental understanding to engineering design. <i>Chemical Society Reviews</i> , 2020 , 49, 2140-2195	58.5	175
271	Sodium-Oxygen Batteries: A Comparative Review from Chemical and Electrochemical Fundamentals to Future Perspective. <i>Advanced Materials</i> , 2016 , 28, 7065-93	24	172
270	Air-stable Li ₃ InCl ₆ electrolyte with high voltage compatibility for all-solid-state batteries. <i>Energy and Environmental Science</i> , 2019 , 12, 2665-2671	35.4	158
269	Single-Atom Catalysts: From Design to Application. <i>Electrochemical Energy Reviews</i> , 2019 , 2, 539-573	29.3	157
268	Progress and perspectives on halide lithium conductors for all-solid-state lithium batteries. <i>Energy and Environmental Science</i> , 2020 , 13, 1429-1461	35.4	153
267	Design of a mixed conductive garnet/Li interface for dendrite-free solid lithium metal batteries. <i>Energy and Environmental Science</i> , 2020 , 13, 127-134	35.4	150
266	Surface and Subsurface Reactions of Lithium Transition Metal Oxide Cathode Materials: An Overview of the Fundamental Origins and Remedying Approaches. <i>Advanced Energy Materials</i> , 2018 , 8, 1802057	21.8	146

265	Radially Oriented Single-Crystal Primary Nanosheets Enable Ultrahigh Rate and Cycling Properties of LiNi _{0.8} Co _{0.1} Mn _{0.1} O ₂ Cathode Material for Lithium-Ion Batteries. <i>Advanced Energy Materials</i> , 2019 , 9, 1803963	21.8	143
264	Atomic Fe-Doped MOF-Derived Carbon Polyhedrons with High Active-Center Density and Ultra-High Performance toward PEM Fuel Cells. <i>Advanced Energy Materials</i> , 2019 , 9, 1802856	21.8	142
263	Determining the limiting factor of the electrochemical stability window for PEO-based solid polymer electrolytes: main chain or terminal OH group?. <i>Energy and Environmental Science</i> , 2020 , 13, 1318-1325	35.4	141
262	Cobalt-Doped SnS ₂ with Dual Active Centers of Synergistic Absorption-Catalysis Effect for High-S Loading Li-S Batteries. <i>Advanced Functional Materials</i> , 2019 , 29, 1806724	15.6	139
261	New Strategy for Polysulfide Protection Based on Atomic Layer Deposition of TiO ₂ onto Ferroelectric-Encapsulated Cathode: Toward Ultrastable Free-Standing Room Temperature Sodium Sulfur Batteries. <i>Advanced Functional Materials</i> , 2018 , 28, 1705537	15.6	134
260	Surface Doping to Enhance Structural Integrity and Performance of Li-Rich Layered Oxide. <i>Advanced Energy Materials</i> , 2018 , 8, 1802105	21.8	134
259	On rechargeability and reaction kinetics of sodium-air batteries. <i>Energy and Environmental Science</i> , 2014 , 7, 3747-3757	35.4	132
258	Ultrahigh Rate and Long-Life Sodium-Ion Batteries Enabled by Engineered Surface and Near-Surface Reactions. <i>Advanced Materials</i> , 2018 , 30, 1702486	24	130
257	A Novel Organic "Polyurea" Thin Film for Ultralong-Life Lithium-Metal Anodes via Molecular-Layer Deposition. <i>Advanced Materials</i> , 2019 , 31, e1806541	24	129
256	Discharge product morphology and increased charge performance of lithium-oxygen batteries with graphene nanosheet electrodes: the effect of sulphur doping. <i>Journal of Materials Chemistry</i> , 2012 , 22, 20170		127
255	Hierarchically porous LiFePO ₄ /nitrogen-doped carbon nanotubes composite as a cathode for lithium ion batteries. <i>Journal of Materials Chemistry</i> , 2012 , 22, 7537		126
254	Safe and Durable High-Temperature Lithium-Sulfur Batteries via Molecular Layer Deposited Coating. <i>Nano Letters</i> , 2016 , 16, 3545-9	11.5	126
253	Stabilizing the Interface of NASICON Solid Electrolyte against Li Metal with Atomic Layer Deposition. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 31240-31248	9.5	125
252	A high-energy sulfur cathode in carbonate electrolyte by eliminating polysulfides via solid-phase lithium-sulfur transformation. <i>Nature Communications</i> , 2018 , 9, 4509	17.4	123
251	Recent Advances in MOF-Derived Single Atom Catalysts for Electrochemical Applications. <i>Advanced Energy Materials</i> , 2020 , 10, 2001561	21.8	122
250	Efficient Trapping and Catalytic Conversion of Polysulfides by VS ₄ Nanosites for LiS Batteries. <i>ACS Energy Letters</i> , 2019 , 4, 755-762	20.1	122
249	Engineered Graphene Materials: Synthesis and Applications for Polymer Electrolyte Membrane Fuel Cells. <i>Advanced Materials</i> , 2017 , 29, 1601741	24	118
248	Potential of metal-free Graphene alloys electrocatalysts for oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 1795-1810	13	118

247	Nitrogen-doped carbon nanotubes with high activity for oxygen reduction in alkaline media. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 2258-2265	6.7	118
246	Water-Mediated Synthesis of a Superionic Halide Solid Electrolyte. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 16427-16432	16.4	113
245	Going Beyond Lithium Hybrid Capacitors: Proposing a New High-Performing Sodium Hybrid Capacitor System for Next-Generation Hybrid Vehicles Made with Bio-Inspired Activated Carbon. <i>Advanced Energy Materials</i> , 2016 , 6, 1502199	21.8	112
244	A Highly Durable Platinum Nanocatalyst for Proton Exchange Membrane Fuel Cells: Multiarmed Starlike Nanowire Single Crystal. <i>Angewandte Chemie</i> , 2011 , 123, 442-446	3.6	110
243	g-C ₃ N ₄ promoted MOF derived hollow carbon nanopolyhedra doped with high density/fraction of single Fe atoms as an ultra-high performance non-precious catalyst towards acidic ORR and PEM fuel cells. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 5020-5030	13	102
242	In Situ Li PS Solid-State Electrolyte Protection Layers for Superior Long-Life and High-Rate Lithium-Metal Anodes. <i>Advanced Materials</i> , 2018 , 30, e1804684	24	102
241	Atomic scale enhancement of metal-support interactions between Pt and ZrC for highly stable electrocatalysts. <i>Energy and Environmental Science</i> , 2015 , 8, 1450-1455	35.4	101
240	Soft X-ray XANES studies of various phases related to LiFePO ₄ based cathode materials. <i>Energy and Environmental Science</i> , 2012 , 5, 7007	35.4	101
239	Site-Occupation-Tuned Superionic LiScClHalide Solid Electrolytes for All-Solid-State Batteries. <i>Journal of the American Chemical Society</i> , 2020 , 142, 7012-7022	16.4	97
238	WO ₃ nanowires on carbon papers: electronic transport, improved ultraviolet-light photodetectors and excellent field emitters. <i>Journal of Materials Chemistry</i> , 2011 , 21, 6525		97
237	Molecular Layer Deposition for Energy Conversion and Storage. <i>ACS Energy Letters</i> , 2018 , 3, 899-914	20.1	96
236	Li ₂ CO ₃ : A Critical Issue for Developing Solid Garnet Batteries. <i>ACS Energy Letters</i> , 2020 , 5, 252-262	20.1	96
235	Graphene Oxide-Template Controlled Cuboid-Shaped High-Capacity VS ₄ Nanoparticles as Anode for Sodium-Ion Batteries. <i>Advanced Functional Materials</i> , 2018 , 28, 1801806	15.6	94
234	Solid-State Plastic Crystal Electrolytes: Effective Protection Interlayers for Sulfide-Based All-Solid-State Lithium Metal Batteries. <i>Advanced Functional Materials</i> , 2019 , 29, 1900392	15.6	92
233	Boosting the performance of lithium batteries with solid-liquid hybrid electrolytes: Interfacial properties and effects of liquid electrolytes. <i>Nano Energy</i> , 2018 , 48, 35-43	17.1	92
232	Enhanced Performance of P ₂ -Na _{0.66} (Mn _{0.54} Co _{0.13} Ni _{0.13})O ₂ Cathode for Sodium-Ion Batteries by Ultrathin Metal Oxide Coatings via Atomic Layer Deposition. <i>Advanced Functional Materials</i> , 2017 , 27, 1701870	15.6	92
231	Nanoscale Manipulation of Spinel Lithium Nickel Manganese Oxide Surface by Multisite Ti Occupation as High-Performance Cathode. <i>Advanced Materials</i> , 2017 , 29, 1703764	24	91
230	Novel approach toward a binder-free and current collector-free anode configuration: highly flexible nanoporous carbon nanotube electrodes with strong mechanical strength harvesting improved lithium storage. <i>Journal of Materials Chemistry</i> , 2012 , 22, 18847		88

229	Unravelling the Chemistry and Microstructure Evolution of a Cathodic Interface in Sulfide-Based All-Solid-State Li-Ion Batteries. <i>ACS Energy Letters</i> , 2019 , 4, 2480-2488	20.1	85
228	Surface aging at olivine LiFePO ₄ : a direct visual observation of iron dissolution and the protection role of nano-carbon coating. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 1579-1586	13	84
227	Recent Progress on MOF-Derived Nanomaterials as Advanced Electrocatalysts in Fuel Cells. <i>Catalysts</i> , 2016 , 6, 116	4	84
226	Cu-doped P2-Na _{0.5} Ni _{0.33} Mn _{0.67} O ₂ encapsulated with MgO as a novel high voltage cathode with enhanced Na-storage properties. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 8408-8415	13	82
225	Tuning the Anode-Electrolyte Interface Chemistry for Garnet-Based Solid-State Li Metal Batteries. <i>Advanced Materials</i> , 2020 , 32, e2000030	24	81
224	A Versatile Sn-Substituted Argyrodite Sulfide Electrolyte for All-Solid-State Li Metal Batteries. <i>Advanced Energy Materials</i> , 2020 , 10, 1903422	21.8	81
223	Tunable porous structure of metal organic framework derived carbon and the application in lithium-sulfur batteries. <i>Journal of Power Sources</i> , 2016 , 302, 174-179	8.9	81
222	Highly stable Na _{2/3} (Mn _{0.54} Ni _{0.13} Co _{0.13})O ₂ cathode modified by atomic layer deposition for sodium-ion batteries. <i>ChemSusChem</i> , 2015 , 8, 2537-43	8.3	80
221	Honeycomb-like Hard Carbon Derived from Pine Pollen as High-Performance Anode Material for Sodium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 42796-42803	9.5	80
220	Towards high performance Li metal batteries: Nanoscale surface modification of 3D metal hosts for pre-stored Li metal anodes. <i>Nano Energy</i> , 2018 , 54, 375-382	17.1	80
219	Origin of the high oxygen reduction reaction of nitrogen and sulfur co-doped MOF-derived nanocarbon electrocatalysts. <i>Materials Horizons</i> , 2017 , 4, 900-907	14.4	79
218	High-Performance Li-SeS All-Solid-State Lithium Batteries. <i>Advanced Materials</i> , 2019 , 31, e1808100	24	79
217	Three-Dimensional Nanostructured Air Electrode for Sodium-Oxygen Batteries: A Mechanism Study toward the Cyclability of the Cell. <i>Chemistry of Materials</i> , 2015 , 27, 3040-3047	9.6	79
216	Stability of Li ₂ CO ₃ in cathode of lithium ion battery and its influence on electrochemical performance. <i>RSC Advances</i> , 2016 , 6, 19233-19237	3.7	78
215	An Isolated Zinc-Cobalt Atomic Pair for Highly Active and Durable Oxygen Reduction. <i>Angewandte Chemie</i> , 2019 , 131, 2648-2652	3.6	78
214	Engineering the Pores of Biomass-Derived Carbon: Insights for Achieving Ultrahigh Stability at High Power in High-Energy Supercapacitors. <i>ChemSusChem</i> , 2017 , 10, 2805-2815	8.3	75
213	High Capacity, Dendrite-Free Growth, and Minimum Volume Change Na Metal Anode. <i>Small</i> , 2018 , 14, e1703717	11	75
212	Ultrastable Anode Interface Achieved by Fluorinating Electrolytes for All-Solid-State Li Metal Batteries. <i>ACS Energy Letters</i> , 2020 , 5, 1035-1043	20.1	73

211	Graphene Nanoribbons Derived from the Unzipping of Carbon Nanotubes: Controlled Synthesis and Superior Lithium Storage Performance. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 881-890	3.8	73
210	A metal-organic framework-derived bifunctional catalyst for hybrid sodium-air batteries. <i>Applied Catalysis B: Environmental</i> , 2019 , 241, 407-414	21.8	73
209	An Air-Stable and Dendrite-Free Li Anode for Highly Stable All-Solid-State Sulfide-Based Li Batteries. <i>Advanced Energy Materials</i> , 2019 , 9, 1902125	21.8	72
208	Recent advances and perspectives on thin electrolytes for high-energy-density solid-state lithium batteries. <i>Energy and Environmental Science</i> , 2021 , 14, 643-671	35.4	71
207	Non-Aqueous Approach to Synthesize Amorphous/Crystalline Metal Oxide-Graphene Nanosheet Hybrid Composites. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 18330-18337	3.8	70
206	Toward High Areal Energy and Power Density Electrode for Li-Ion Batteries via Optimized 3D Printing Approach. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 39794-39801	9.5	70
205	High-performance all-solid-state LiSe batteries induced by sulfide electrolytes. <i>Energy and Environmental Science</i> , 2018 , 11, 2828-2832	35.4	69
204	Ti-Based Oxide Anode Materials for Advanced Electrochemical Energy Storage: Lithium/Sodium Ion Batteries and Hybrid Pseudocapacitors. <i>Small</i> , 2019 , 15, e1904740	11	69
203	Interface Design and Development of Coating Materials in Lithium-Sulfur Batteries. <i>Advanced Functional Materials</i> , 2018 , 28, 1801323	15.6	69
202	Ultrasoft MoS ₂ embedded in carbon nanosheets-coated Sn/SnO _x as anode material for high-rate and long life Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 4576-4582	13	68
201	Superior sodium storage of novel VO ₂ nano-microspheres encapsulated into crumpled reduced graphene oxide. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 4850-4860	13	67
200	Robust Metallic Lithium Anode Protection by the Molecular-Layer-Deposition Technique. <i>Small Methods</i> , 2018 , 2, 1700417	12.8	65
199	Tailoring interactions of carbon and sulfur in LiS battery cathodes: significant effects of carbon-heteroatom bonds. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 12866	13	65
198	Detection of Electrochemical Reaction Products from the Sodium-Oxygen Cell with Solid-State Na NMR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2017 , 139, 595-598	16.4	64
197	Highly Stable Lithium Metal Anode Interface via Molecular Layer Deposition Zirconium Coatings for Long Life Next-Generation Battery Systems. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 15797-15802	16.4	64
196	Automated Four-Point Probe Measurement of Nanowires Inside a Scanning Electron Microscope. <i>IEEE Nanotechnology Magazine</i> , 2011 , 10, 674-681	2.6	64
195	Atomic layer deposited coatings to significantly stabilize anodes for Li ion batteries: effects of coating thickness and the size of anode particles. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 2306	13	63
194	Atomic Layer Deposition of Lithium Niobium Oxides as Potential Solid-State Electrolytes for Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 1654-1661	9.5	63

193	Pt/Pd Single-Atom Alloys as Highly Active Electrochemical Catalysts and the Origin of Enhanced Activity. <i>ACS Catalysis</i> , 2019 , 9, 9350-9358	13.1	61
192	Electrocatalysts by atomic layer deposition for fuel cell applications. <i>Nano Energy</i> , 2016 , 29, 220-242	17.1	61
191	Manipulating Interfacial Nanostructure to Achieve High-Performance All-Solid-State Lithium-Ion Batteries. <i>Small Methods</i> , 2019 , 3, 1900261	12.8	60
190	Insight into MoS ₂ /MoN Heterostructure to Accelerate Polysulfide Conversion toward High-Energy-Density Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2021 , 11, 2003314	21.8	60
189	Toward a Sodium-Air Battery: Revealing the Critical Role of Humidity. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 13433-13441	3.8	58
188	Fe ₂ O ₃ @CNTs Anode Materials for Lithium Ion Batteries Investigated by Electron Energy Loss Spectroscopy. <i>Chemistry of Materials</i> , 2017 , 29, 3499-3506	9.6	53
187	Stabilization of all-solid-state LiB batteries with a polymer/ceramic sandwich electrolyte by atomic layer deposition. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 23712-23719	13	51
186	Li ₁₀ Ge(P _{1-x} Sb _x) ₂ S ₁₂ Lithium-Ion Conductors with Enhanced Atmospheric Stability. <i>Chemistry of Materials</i> , 2020 , 32, 2664-2672	9.6	50
185	Mitigating the Interfacial Degradation in Cathodes for High-Performance Oxide-Based Solid-State Lithium Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 4954-4961	9.5	50
184	All-solid-state lithium batteries enabled by sulfide electrolytes: from fundamental research to practical engineering design. <i>Energy and Environmental Science</i> , 2021 , 14, 2577-2619	35.4	49
183	A bifunctional solid state catalyst with enhanced cycling stability for Na and Li-O ₂ cells: revealing the role of solid state catalysts. <i>Energy and Environmental Science</i> , 2017 , 10, 286-295	35.4	47
182	Active and Stable Pt ₃ Ni Alloy Octahedra Catalyst for Oxygen Reduction via Near-Surface Atomical Engineering. <i>ACS Catalysis</i> , 2020 , 10, 4205-4214	13.1	47
181	Atomic layer deposited Li ₄ Ti ₅ O ₁₂ on nitrogen-doped carbon nanotubes. <i>RSC Advances</i> , 2013 , 3, 7285	3.7	47
180	A flexible electron-blocking interfacial shield for dendrite-free solid lithium metal batteries. <i>Nature Communications</i> , 2021 , 12, 176	17.4	47
179	Interaction of Carbon Coating on LiFePO ₄ : A Local Visualization Study of the Influence of Impurity Phases. <i>Advanced Functional Materials</i> , 2013 , 23, 806-814	15.6	46
178	Engineering defect-rich Fe-doped NiO coupled Ni cluster nanotube arrays with excellent oxygen evolution activity. <i>Applied Catalysis B: Environmental</i> , 2021 , 285, 119809	21.8	45
177	Single-atom catalysts by the atomic layer deposition technique. <i>National Science Review</i> , 2018 , 5, 628-630	10.8	45
176	3D Vertically Aligned Li Metal Anodes with Ultrahigh Cycling Currents and Capacities of 10 mA cm ² /20 mAh cm ² Realized by Selective Nucleation within Microchannel Walls. <i>Advanced Energy Materials</i> , 2020 , 10, 1903753	21.8	44

175	Synchrotron-Based X-ray Absorption Fine Structures, X-ray Diffraction, and X-ray Microscopy Techniques Applied in the Study of Lithium Secondary Batteries. <i>Small Methods</i> , 2018 , 2, 1700341	12.8	44
174	Three growth modes and mechanisms for highly structure-tunable SnO ₂ nanotube arrays of template-directed atomic layer deposition. <i>Journal of Materials Chemistry</i> , 2011 , 21, 12321		44
173	Atomic Layer Deposited Lithium Silicates as Solid-State Electrolytes for All-Solid-State Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 31786-31793	9.5	43
172	Tailoring Li ₆ PS ₅ Br ionic conductivity and understanding of its role in cathode mixtures for high performance all-solid-state Li ₈ batteries. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 10412-10421	13	42
171	Dynamics of the Garnet/Li Interface for Dendrite-Free Solid-State Batteries. <i>ACS Energy Letters</i> , 2020 , 5, 2156-2164	20.1	41
170	Recent Advances on Sodium-Oxygen Batteries: A Chemical Perspective. <i>Accounts of Chemical Research</i> , 2018 , 51, 1532-1540	24.3	41
169	Water-Mediated Synthesis of a Superionic Halide Solid Electrolyte. <i>Angewandte Chemie</i> , 2019 , 131, 16579-16584	9.6	40
168	All-Organic Sodium Hybrid Capacitor: A New, High-Energy, High-Power Energy Storage System Bridging Batteries and Capacitors. <i>Chemistry of Materials</i> , 2017 , 29, 7122-7130	9.6	40
167	Insights into interfacial effect and local lithium-ion transport in polycrystalline cathodes of solid-state batteries. <i>Nature Communications</i> , 2020 , 11, 5700	17.4	40
166	Observation of lithiation-induced structural variations in TiO ₂ nanotube arrays by X-ray absorption fine structure. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 412-419	13	39
165	Composite Nanostructure Construction on the Grain Surface of Li-Rich Layered Oxides. <i>Advanced Materials</i> , 2020 , 32, e1906070	24	38
164	Eliminating the Detrimental Effects of Conductive Agents in Sulfide-Based Solid-State Batteries. <i>ACS Energy Letters</i> , 2020 , 5, 1243-1251	20.1	38
163	Engineering the conductive carbon/PEO interface to stabilize solid polymer electrolytes for all-solid-state high voltage LiCoO ₂ batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 2769-2776	13	38
162	Heterostructural coaxial nanotubes of CNT@Fe ₂ O ₃ via atomic layer deposition: effects of surface functionalization and nitrogen-doping. <i>Journal of Nanoparticle Research</i> , 2011 , 13, 1207-1218	2.3	37
161	Interfaces in Garnet-Based All-Solid-State Lithium Batteries. <i>Advanced Energy Materials</i> , 2020 , 10, 2001318.8	11.8	37
160	Utilizing the full capacity of carbon black as anode for Na-ion batteries via solvent co-intercalation. <i>Nano Research</i> , 2017 , 10, 4378-4387	10	36
159	3D boron doped carbon nanorods/carbon-microfiber hybrid composites: synthesis and applications in a highly stable proton exchange membrane fuel cell. <i>Journal of Materials Chemistry</i> , 2011 , 21, 18195		36
158	Engineering the Low Coordinated Pt Single Atom to Achieve the Superior Electrocatalytic Performance toward Oxygen Reduction. <i>Small</i> , 2020 , 16, e2003096	11	36

157	Ultrahigh-Capacity and Long-Life Lithium-Metal Batteries Enabled by Engineering Carbon Nanofiber-Stabilized Graphene Aerogel Film Host. <i>Small</i> , 2018 , 14, e1803310	11	36
156	An Air-Stable and Li-Metal-Compatible Glass-Ceramic Electrolyte enabling High-Performance All-Solid-State Li Metal Batteries. <i>Advanced Materials</i> , 2021 , 33, e2006577	24	36
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