

Aiping Yu

List of Publications by Year in descending order

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152
papers

17,944
citations

13865

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13771

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158
all docs

158
docs citations

158
times ranked

19212
citing authors

#	ARTICLE	IF	CITATIONS
1	A review on non-precious metal electrocatalysts for PEM fuel cells. <i>Energy and Environmental Science</i> , 2011, 4, 3167.	30.8	1,651
2	Electrically Rechargeable Zinc-Air Batteries: Progress, Challenges, and Perspectives. <i>Advanced Materials</i> , 2017, 29, 1604685.	21.0	1,143
3	A review of graphene and graphene oxide sponge: material synthesis and applications to energy and the environment. <i>Energy and Environmental Science</i> , 2014, 7, 1564.	30.8	996
4	Automotive Li-Ion Batteries: Current Status and Future Perspectives. <i>Electrochemical Energy Reviews</i> , 2019, 2, 1-28.	25.5	745
5	A review of composite solid-state electrolytes for lithium batteries: fundamentals, key materials and advanced structures. <i>Chemical Society Reviews</i> , 2020, 49, 8790-8839.	38.1	461
6	The application of graphene and its composites in oxygen reduction electrocatalysis: a perspective and review of recent progress. <i>Energy and Environmental Science</i> , 2016, 9, 357-390.	30.8	456
7	Recent Progress in Electrically Rechargeable Zinc-Air Batteries. <i>Advanced Materials</i> , 2019, 31, e1805230.	21.0	398
8	Highly Active and Durable Core-Corona Structured Bifunctional Catalyst for Rechargeable Metal-Air Battery Application. <i>Nano Letters</i> , 2012, 12, 1946-1952.	9.1	392
9	Ultrathin, transparent, and flexible graphene films for supercapacitor application. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	347
10	Structural and chemical synergistic encapsulation of polysulfides enables ultralong-life lithium-sulfur batteries. <i>Energy and Environmental Science</i> , 2016, 9, 2533-2538.	30.8	330
11	A Single-Atom Iridium Heterogeneous Catalyst in Oxygen Reduction Reaction. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 9640-9645.	13.8	312
12	Recycling of mixed cathode lithium-ion batteries for electric vehicles: Current status and future outlook. , 2020, 2, 6-43.		300
13	The Current State of Aqueous Zn-Based Rechargeable Batteries. <i>ACS Energy Letters</i> , 2020, 5, 1665-1675.	17.4	271
14	Developing high safety Li-metal anodes for future high-energy Li-metal batteries: strategies and perspectives. <i>Chemical Society Reviews</i> , 2020, 49, 5407-5445.	38.1	264
15	Biologically Inspired Highly Durable Iron Phthalocyanine Catalysts for Oxygen Reduction Reaction in Polymer Electrolyte Membrane Fuel Cells. <i>Journal of the American Chemical Society</i> , 2010, 132, 17056-17058.	13.7	259
16	Stringed α -tube on cube-nanohybrids as compact cathode matrix for high-loading and lean-electrolyte lithium-sulfur batteries. <i>Energy and Environmental Science</i> , 2018, 11, 2372-2381.	30.8	255
17	Graphene-wrapped hierarchical TiO ₂ nanoflower composites with enhanced photocatalytic performance. <i>Journal of Materials Chemistry A</i> , 2013, 1, 12255.	10.3	220
18	Pyrolic-structure enriched nitrogen doped graphene for highly efficient next generation supercapacitors. <i>Journal of Materials Chemistry A</i> , 2013, 1, 2904.	10.3	215

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19	Development and Simulation of Sulfur-doped Graphene Supported Platinum with Exemplary Stability and Activity Towards Oxygen Reduction. <i>Advanced Functional Materials</i> , 2014, 24, 4325-4336.	14.9	214
20	Chemisorption of polysulfides through redox reactions with organic molecules for lithium-sulfur batteries. <i>Nature Communications</i> , 2018, 9, 705.	12.8	207
21	Controllable Urchin-Like NiCo ₂ S ₄ Microsphere Synergized with Sulfur-doped Graphene as Bifunctional Catalyst for Superior Rechargeable Zn-Air Battery. <i>Advanced Functional Materials</i> , 2018, 28, 1706675.	14.9	203
22	Revealing the Rapid Electrocatalytic Behavior of Ultrafine Amorphous Defective Nb ₂ O ₅ Nanocluster toward Superior Li-S Performance. <i>ACS Nano</i> , 2020, 14, 4849-4860.	14.6	201
23	Microporous framework membranes for precise molecule/ion separations. <i>Chemical Society Reviews</i> , 2021, 50, 986-1029.	38.1	191
24	Dynamic electrocatalyst with current-driven oxyhydroxide shell for rechargeable zinc-air battery. <i>Nature Communications</i> , 2020, 11, 1952.	12.8	185
25	Synergistic Engineering of Defects and Architecture in Binary Metal Chalcogenide toward Fast and Reliable Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2019, 9, 1900228.	19.5	177
26	Polysulfide Regulation by the Zwitterionic Barrier toward Durable Lithium-Sulfur Batteries. <i>Journal of the American Chemical Society</i> , 2020, 142, 3583-3592.	13.7	174
27	Enhancing Oxygen Reduction Activity of Pt-based Electrocatalysts: From Theoretical Mechanisms to Practical Methods. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 18334-18348.	13.8	174
28	Defect Engineering of Chalcogen-Tailored Oxygen Electrocatalysts for Rechargeable Quasi-Solid-State Zinc-Air Batteries. <i>Advanced Materials</i> , 2017, 29, 1702526.	21.0	171
29	Evidence of covalent synergy in silicon-sulfur-graphene yielding highly efficient and long-life lithium-ion batteries. <i>Nature Communications</i> , 2015, 6, 8597.	12.8	163
30	Constructing multifunctional solid electrolyte interface via in-situ polymerization for dendrite-free and low N/P ratio lithium metal batteries. <i>Nature Communications</i> , 2021, 12, 186.	12.8	163
31	Laminated Cross-Linked Nanocellulose/Graphene Oxide Electrolyte for Flexible Rechargeable Zinc-Air Batteries. <i>Advanced Energy Materials</i> , 2016, 6, 1600476.	19.5	155
32	Material advancements in supercapacitors: From activated carbon to carbon nanotube and graphene. <i>Canadian Journal of Chemical Engineering</i> , 2011, 89, 1342-1357.	1.7	154
33	Rational design of tailored porous carbon-based materials for CO ₂ capture. <i>Journal of Materials Chemistry A</i> , 2019, 7, 20985-21003.	10.3	150
34	Tailoring FeN ₄ Sites with Edge Enrichment for Boosted Oxygen Reduction Performance in Proton Exchange Membrane Fuel Cell. <i>Advanced Energy Materials</i> , 2019, 9, 1803737.	19.5	148
35	An all-aqueous redox flow battery with unprecedented energy density. <i>Energy and Environmental Science</i> , 2018, 11, 2010-2015.	30.8	147
36	Engineering Oversaturated FeN ₅ Multifunctional Catalytic Sites for Durable Lithium-Sulfur Batteries. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 26622-26629.	13.8	144

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37	“Two Ships in a Bottle” Design for Zn–Ag–O Catalyst Enabling Selective and Long-Lasting CO ₂ Electroreduction. <i>Journal of the American Chemical Society</i> , 2021, 143, 6855-6864.	13.7	139
38	Paper-based all-solid-state flexible micro-supercapacitors with ultra-high rate and rapid frequency response capabilities. <i>Journal of Materials Chemistry A</i> , 2016, 4, 3754-3764.	10.3	136
39	Quasi-Covalently Coupled Ni–Cu Atomic Pair for Synergistic Electroreduction of CO ₂ . <i>Journal of the American Chemical Society</i> , 2022, 144, 9661-9671.	13.7	134
40	An Oxygen-Vacancy-Rich Semiconductor-Supported Bifunctional Catalyst for Efficient and Stable Zinc–Air Batteries. <i>Advanced Materials</i> , 2019, 31, e1806761.	21.0	133
41	Enhanced Reversible Sodium-Ion Intercalation by Synergistic Coupling of Few-Layered MoS ₂ and S-Doped Graphene. <i>Advanced Functional Materials</i> , 2017, 27, 1702562.	14.9	132
42	Self-Templated Hierarchically Porous Carbon Nanorods Embedded with Atomic Fe ₄ Active Sites as Efficient Oxygen Reduction Electrocatalysts in Zn–Air Batteries. <i>Advanced Functional Materials</i> , 2021, 31, 2008085.	14.9	117
43	3d-Orbital Occupancy Regulated Ir-Co Atomic Pair Toward Superior Bifunctional Oxygen Electrocatalysis. <i>ACS Catalysis</i> , 2021, 11, 8837-8846.	11.2	110
44	d-Orbital steered active sites through ligand editing on heterometal imidazole frameworks for rechargeable zinc-air battery. <i>Nature Communications</i> , 2020, 11, 5858.	12.8	109
45	Graphene Quantum Dots-Based Advanced Electrode Materials: Design, Synthesis and Their Applications in Electrochemical Energy Storage and Electrocatalysis. <i>Advanced Energy Materials</i> , 2020, 10, 2001275.	19.5	109
46	3D N-doped hybrid architectures assembled from 0D T-Nb ₂ O ₅ embedded in carbon microtubes toward high-rate Li-ion capacitors. <i>Nano Energy</i> , 2019, 56, 118-126.	16.0	105
47	Hierarchically Porous Multimetal-Based Carbon Nanorod Hybrid as an Efficient Oxygen Catalyst for Rechargeable Zinc–Air Batteries. <i>Advanced Functional Materials</i> , 2020, 30, 1908167.	14.9	105
48	Tantalum-Based Electrocatalyst for Polysulfide Catalysis and Retention for High-Performance Lithium-Sulfur Batteries. <i>Matter</i> , 2020, 3, 920-934.	10.0	104
49	Phase evolution of conversion-type electrode for lithium ion batteries. <i>Nature Communications</i> , 2019, 10, 2224.	12.8	99
50	Nano-crumpled induced Sn-Bi bimetallic interface pattern with moderate electron bank for highly efficient CO ₂ electroreduction. <i>Nature Communications</i> , 2022, 13, 2486.	12.8	99
51	Electrolyte Design for Lithium Metal Anode-Based Batteries Toward Extreme Temperature Application. <i>Advanced Science</i> , 2021, 8, e2101051.	11.2	95
52	Flexible, three-dimensional ordered macroporous TiO ₂ electrode with enhanced electrode–electrolyte interaction in high-power Li-ion batteries. <i>Nano Energy</i> , 2016, 24, 72-77.	16.0	91
53	Reduced Graphene Oxide/Tin–Antimony Nanocomposites as Anode Materials for Advanced Sodium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 24895-24901.	8.0	89
54	Tuning Shell Numbers of Transition Metal Oxide Hollow Microspheres toward Durable and Superior Lithium Storage. <i>ACS Nano</i> , 2017, 11, 11521-11530.	14.6	88

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55	Enhanced Solar Photocatalytic Degradation of Phenol with Coupled Graphene-Based Titanium Dioxide and Zinc Oxide. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 18824-18832.	3.7	87
56	Nitrogen-enriched porous carbon nanorods templated by cellulose nanocrystals as high performance supercapacitor electrodes. <i>Journal of Materials Chemistry A</i> , 2015, 3, 23768-23777.	10.3	87
57	Linker-Compensated Metal-Organic Framework with Electron Delocalized Metal Sites for Bifunctional Oxygen Electrocatalysis. <i>Journal of the American Chemical Society</i> , 2022, 144, 4783-4791.	13.7	86
58	Recent Progress on High-Performance Cathode Materials for Zinc-Ion Batteries. <i>Small Structures</i> , 2021, 2, 2000064.	12.0	85
59	Defect-Enriched Nitrogen Doped Graphene Quantum Dots Engineered NiCo ₂ S ₄ Nanoarray as High-Efficiency Bifunctional Catalyst for Flexible Zn-Air Battery. <i>Small</i> , 2019, 15, e1903610.	10.0	84
60	Introduction of an Enhanced Binding of Reduced Graphene Oxide to Polyurethane Sponge for Oil Absorption. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 3657-3663.	3.7	83
61	Ultra-large sized graphene nano-platelets (GnPs) incorporated polypropylene (PP)/GnPs composites engineered by melt compounding and its thermal, mechanical, and electrical properties. <i>Composites Part B: Engineering</i> , 2018, 133, 218-225.	12.0	83
62	Layer-Based Heterostructured Cathodes for Lithium-Ion and Sodium-Ion Batteries. <i>Advanced Functional Materials</i> , 2019, 29, 1808522.	14.9	82
63	Merging Single-Atom-Dispersed Iron and Graphitic Carbon Nitride to a Joint Electronic System for High-Efficiency Photocatalytic Hydrogen Evolution. <i>Small</i> , 2019, 15, e1905166.	10.0	80
64	Hollow porous prismatic graphitic carbon nitride with nitrogen vacancies and oxygen doping: a high-performance visible light-driven catalyst for nitrogen fixation. <i>Nanoscale</i> , 2020, 12, 1833-1841.	5.6	79
65	Bioinspired Graphene Oxide Membranes with Dual Transport Mechanisms for Precise Molecular Separation. <i>Advanced Functional Materials</i> , 2019, 29, 1905229.	14.9	75
66	A general approach for fabricating 3D MFe ₂ O ₄ (M=Mn, Ni, Cu, Co)/graphitic carbon nitride covalently functionalized nitrogen-doped graphene nanocomposites as advanced anodes for lithium-ion batteries. <i>Nano Energy</i> , 2019, 57, 48-56.	16.0	75
67	A Triphasic Bifunctional Oxygen Electrocatalyst with Tunable and Synergetic Interfacial Structure for Rechargeable Zn-Air Batteries. <i>Advanced Energy Materials</i> , 2020, 10, 1903003.	19.5	74
68	A "trimurti" heterostructured hybrid with an intimate CoO/Co _x P interface as a robust bifunctional air electrode for rechargeable Zn-air batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 9177-9184.	10.3	72
69	Highly conductive interconnected graphene foam based polymer composite. <i>Carbon</i> , 2015, 95, 653-658.	10.3	68
70	All-in-One Graphene Based Composite Fiber: Toward Wearable Supercapacitor. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 39576-39583.	8.0	67
71	Advanced Li-Ion Hybrid Supercapacitors Based on 3D Graphene-Foam Composites. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 25941-25953.	8.0	66
72	Enhanced electromagnetic wave absorption performance of polymer/SiC-nanowire/MXene (Ti ₃ C ₂ T _x) composites. <i>Carbon</i> , 2021, 179, 408-416.	10.3	66

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73	Boron Nitride Membranes with a Distinct Nanoconfinement Effect for Efficient Ethylene/Ethane Separation. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 13969-13975.	13.8	64
74	Sulfur Nanogranular Film-Coated Three-Dimensional Graphene Sponge-Based High Power Lithium Sulfur Battery. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 1984-1991.	8.0	63
75	Hierarchically Porous Ti ₃ C ₂ MXene with Tunable Active Edges and Unsaturated Coordination Bonds for Superior Lithium-Sulfur Batteries. <i>ACS Nano</i> , 2021, 15, 19457-19467.	14.6	63
76	Materials Engineering toward Durable Electrocatalysts for Proton Exchange Membrane Fuel Cells. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	61
77	Highly Oriented Graphene Sponge Electrode for Ultra High Energy Density Lithium Ion Hybrid Capacitors. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 25297-25305.	8.0	59
78	A Single-Atom Iridium Heterogeneous Catalyst in Oxygen Reduction Reaction. <i>Angewandte Chemie</i> , 2019, 131, 9742-9747.	2.0	59
79	Green Solid Electrolyte with Cofunctionalized Nanocellulose/Graphene Oxide Interpenetrating Network for Electrochemical Gas Sensors. <i>Small Methods</i> , 2017, 1, 1700237.	8.6	58
80	Bioinspired Tough Solid-State Electrolyte for Flexible Ultralong-Life Zinc-Air Battery. <i>Advanced Materials</i> , 2022, 34, e2110585.	21.0	58
81	Synthesis and Characterization of Template-Free VS ₄ Nanostructured Materials with Potential Application in Photocatalysis. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 2682-2689.	3.7	53
82	Arrested Activation toward Intrinsic Lattice Deficiency in Carbon Nanotube Microspheres for High-Energy and Long-Lasting Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2021, 11, 2100497.	19.5	53
83	All-carbon flexible supercapacitors based on electrophoretic deposition of graphene quantum dots on carbon cloth. <i>Journal of Power Sources</i> , 2019, 438, 227009.	7.8	52
84	Emerging Trends in Sustainable CO ₂ -Management Materials. <i>Advanced Materials</i> , 2022, 34, e2201547.	21.0	52
85	Fast lithium-ion storage of Nb ₂ O ₅ nanocrystals in situ grown on carbon nanotubes for high-performance asymmetric supercapacitors. <i>RSC Advances</i> , 2015, 5, 41179-41185.	3.6	51
86	Morphologically Controlled Bioinspired Dopamine-Polypyrrole Nanostructures with Tunable Electrical Properties. <i>Advanced Electronic Materials</i> , 2015, 1, 1500205.	5.1	48
87	Graphene quantum dot induced tunable growth of nanostructured MnCo ₂ O _{4.5} composites for high-performance supercapacitors. <i>Sustainable Energy and Fuels</i> , 2019, 3, 2499-2508.	4.9	46
88	Structural Impact of Graphene Nanoribbon on Mechanical Properties and Anti-corrosion Performance of Polyurethane Nanocomposites. <i>Chemical Engineering Journal</i> , 2021, 405, 126858.	12.7	46
89	2D Materials for All-Solid-State Lithium Batteries. <i>Advanced Materials</i> , 2022, 34, e2108079.	21.0	45
90	A Gas-Phase Migration Strategy to Synthesize Atomically Dispersed Mn-N-C Catalysts for Zn-Air Batteries. <i>Small Methods</i> , 2021, 5, e2100024.	8.6	44

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91	Molecular Trapping Strategy To Stabilize Subnanometric Pt Clusters for Highly Active Electrocatalysis. <i>ACS Catalysis</i> , 2019, 9, 11603-11613.	11.2	43
92	A 3D ordered hierarchically porous non-carbon electrode for highly effective and efficient capacitive deionization. <i>Journal of Materials Chemistry A</i> , 2019, 7, 15633-15639.	10.3	43
93	A Combined Ordered Macro-Mesoporous Architecture Design and Surface Engineering Strategy for High-Performance Sulfur Immobilizer in Lithium-Sulfur Batteries. <i>Small</i> , 2020, 16, e2001089.	10.0	43
94	Hierarchically Nanostructured Solid-State Electrolyte for Flexible Rechargeable Zinc-Air Batteries. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	43
95	Melamine based, n-doped carbon/reduced graphene oxide composite foam for Li-ion Hybrid Supercapacitors. <i>Carbon</i> , 2018, 129, 152-158.	10.3	42
96	Optical Characterization of Commercial Lithiated Graphite Battery Electrodes and in Situ Fiber Optic Evanescent Wave Spectroscopy. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 18763-18769.	8.0	41
97	Investigation of the size effect of graphene nano-platelets (GnPs) on the anti-corrosion performance of polyurethane/GnP composites. <i>RSC Advances</i> , 2018, 8, 17091-17100.	3.6	41
98	Evolution of atomic-scale dispersion of FeNx in hierarchically porous 3D air electrode to boost the interfacial electrocatalysis of oxygen reduction in PEMFC. <i>Nano Energy</i> , 2021, 83, 105734.	16.0	41
99	Tensile-strained ruthenium phosphide by anion substitution for highly active and durable hydrogen evolution. <i>Nano Energy</i> , 2020, 77, 105212.	16.0	39
100	Enhanced electrical and mechanical properties of graphene nano-ribbon/thermoplastic polyurethane composites. <i>Carbon</i> , 2021, 174, 305-316.	10.3	38
101	Eutectic Etching toward In-Plane Porosity Manipulation of Cl-Terminated MXene for High-Performance Dual-Ion Battery Anode. <i>Advanced Energy Materials</i> , 2022, 12, 2102493.	19.5	37
102	Advanced Electrode Materials Comprising of Structure-Engineered Quantum Dots for High-Performance Asymmetric Micro-Supercapacitors. <i>Advanced Energy Materials</i> , 2020, 10, 1903724.	19.5	36
103	Corrosion inhibition of copper in sodium chloride solution using polyetherimide/graphene composites. <i>Canadian Journal of Chemical Engineering</i> , 2016, 94, 896-904.	1.7	35
104	Effects of Diffusive Charge Transfer and Salt Concentration Gradient in Electrolyte on Li-ion Battery Energy and Power Densities. <i>Electrochimica Acta</i> , 2014, 125, 117-123.	5.2	34
105	Poly(lactic acid)/acetylated starch blends: Effect of starch acetylation on the material properties. <i>Carbohydrate Polymers</i> , 2020, 229, 115453.	10.2	33
106	Engineering Electrochemical Surface for Efficient Carbon Dioxide Upgrade. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	33
107	A highly sensitive breathable fuel cell gas sensor with nanocomposite solid electrolyte. <i>Informa Materials</i> , 2019, 1, 234-241.	17.3	32
108	Design Zwitterionic Amorphous Conjugated Micro-Mesoporous Polymer Assembled Nanotentacle as Highly Efficient Sulfur Electrocatalyst for Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2021, 11, 2101926.	19.5	32

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109	Molecular Functionalization of Graphene Oxide for Next-Generation Wearable Electronics. ACS Applied Materials & Interfaces, 2016, 8, 25428-25437.	8.0	31
110	Greatly Enhanced Electromagnetic Interference Shielding Effectiveness and Mechanical Properties of Polyaniline-Grafted Ti ₃ C ₂ T _x MXene/PVDF Composites. ACS Applied Materials & Interfaces, 2022, 14, 21521-21534.	8.0	31
111	Effect of electrode physical and chemical properties on lithium-ion battery performance. International Journal of Energy Research, 2013, 37, 1723-1736.	4.5	30
112	Development of Embedded Fiber-Optic Evanescent Wave Sensors for Optical Characterization of Graphite Anodes in Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 41284-41290.	8.0	30
113	Thin Film Polyamide Nanocomposite Membrane Decorated by Polyphenol-Assisted Ti ₃ C ₂ T _x MXene Nanosheets for Reverse Osmosis. ACS Applied Materials & Interfaces, 2022, 14, 1838-1849.	8.0	30
114	Boron Nitride Membranes with a Distinct Nanoconfinement Effect for Efficient Ethylene/Ethane Separation. Angewandte Chemie, 2019, 131, 14107-14113.	2.0	29
115	Analogous Mixed Matrix Membranes with Self-Assembled Interface Pathways. Angewandte Chemie - International Edition, 2021, 60, 5864-5870.	13.8	29
116	Supramolecular preorganization effect to access single cobalt sites for enhanced photocatalytic hydrogen evolution and nitrogen fixation. Chemical Engineering Journal, 2020, 394, 124822.	12.7	27
117	Multigrain electrospun nickel doped lithium titanate nanofibers with high power lithium ion storage. Journal of Materials Chemistry A, 2016, 4, 12638-12647.	10.3	25
118	±-NiS grown on reduced graphene oxide and single-wall carbon nanotubes as electrode materials for high-power supercapacitors. RSC Advances, 2015, 5, 27940-27945.	3.6	24
119	Enhancing Oxygen Reduction Activity of Pt-based Electrocatalysts: From Theoretical Mechanisms to Practical Methods. Angewandte Chemie, 2020, 132, 18490-18504.	2.0	24
120	Design of ultralong single-crystal nanowire-based bifunctional electrodes for efficient oxygen and hydrogen evolution in a mild alkaline electrolyte. Journal of Materials Chemistry A, 2017, 5, 10895-10901.	10.3	23
121	Maintaining electrical conductivity of microcellular MWCNT/TPU composites after deformation. Composites Part B: Engineering, 2021, 223, 109113.	12.0	23
122	Heterogeneous Nanodomain Electrolytes for Ultra-Long-Life All-Solid-State Lithium-Metal Batteries. Advanced Functional Materials, 2022, 32, .	14.9	23
123	Advanced Biowaste-Based Flexible Photocatalytic Fuel Cell as a Green Wearable Power Generator. Advanced Materials Technologies, 2017, 2, 1600191.	5.8	22
124	Engineering Oversaturated Fe ₅ Multifunctional Catalytic Sites for Durable Lithium-Sulfur Batteries. Angewandte Chemie, 2021, 133, 26826-26833.	2.0	22
125	Hot-Chemistry Structural Phase Transformation in Single-Crystal Chalcogenides for Long-Life Lithium Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 20603-20612.	8.0	21
126	Substrate comparison for polypyrrole-graphene based high-performance flexible supercapacitors. Electrochimica Acta, 2020, 358, 136846.	5.2	21

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127	Elucidating and tackling capacity fading of zinc-iodine redox flow batteries. <i>Chemical Engineering Journal</i> , 2021, 412, 128499.	12.7	21
128	The plasticizer-free composite block copolymer electrolytes for ultralong lifespan all-solid-state lithium-metal batteries. <i>Nano Energy</i> , 2022, 100, 107499.	16.0	20
129	Gram-Scale Preparation of Surfactant-Free, Carboxylic Acid Groups Functionalized, Individual Single-Walled Carbon Nanotubes in Aqueous Solution. <i>Langmuir</i> , 2010, 26, 1221-1225.	3.5	19
130	The conductivity of polydimethylsiloxane/graphene nano-ribbon foam composite with elongation. <i>Carbon</i> , 2020, 162, 328-338.	10.3	19
131	Engineering investigation for the size effect of graphene oxide derived from graphene nanoplatelets in polyurethane composites. <i>Canadian Journal of Chemical Engineering</i> , 2020, 98, 1084-1096.	1.7	17
132	Development of " Interaction-Induced Functionalized Graphene Oxide on Mechanical and Anticorrosive Properties of Reinforced Polyurethane Composites. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 3617-3628.	3.7	17
133	Nonprecious Electrocatalysts for Li-Air and Zn-Air batteries: Fundamentals and recent advances. <i>IEEE Nanotechnology Magazine</i> , 2017, 11, 29-55.	1.3	16
134	Molten-based defect engineering polymeric carbon nitride quantum dots with enhanced hole extraction: An efficient photoelectrochemical cell for water oxidation. <i>Carbon</i> , 2021, 173, 339-349.	10.3	15
135	Modified chalcogens with a tuned nano-architecture for high energy density and long life hybrid super capacitors. <i>Journal of Materials Chemistry A</i> , 2017, 5, 7523-7532.	10.3	14
136	Fast production of zinc-hexamethylenetetramine complex microflowers as an advanced sulfur reservoir for high-performance lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 5062-5069.	10.3	14
137	A Near-Isotropic Proton-Conducting Porous Graphene Oxide Membrane. <i>ACS Nano</i> , 2020, 14, 14947-14959.	14.6	13
138	Hierarchically Nanostructured Solid-State Electrolyte for Flexible Rechargeable Zinc-Air Batteries. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	13
139	Flexible high performance lithium ion battery electrode based on a free-standing TiO ₂ nanocrystals/carbon cloth composite. <i>RSC Advances</i> , 2016, 6, 35479-35485.	3.6	12
140	Self-Assembled Facilitated Transport Membranes with Tunable Carrier Distribution for Ethylene/Ethane Separation. <i>Advanced Functional Materials</i> , 2021, 31, 2104349.	14.9	12
141	Ionic interaction-mediated interlayer repulsion force promotes steadily shuttling of Zn ²⁺ ions within VOPO ₄ . <i>Nano Energy</i> , 2022, 98, 107268.	16.0	9
142	Fuel Cells: Tailoring FeN ₄ Sites with Edge Enrichment for Boosted Oxygen Reduction Performance in Proton Exchange Membrane Fuel Cell (Adv. Energy Mater. 11/2019). <i>Advanced Energy Materials</i> , 2019, 9, 1970031.	19.5	7
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