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DOI: 10.1038/s41560-018-0108-1
Nature Energy, 2018, 3, 279-289.

Source: <https://exaly.com/paper-pdf/68962859/citation-report.pdf>

Version: 2024-04-29

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1548	3D plum candy-like NiCoMnO@graphene as anodes for high-performance lithium-ion batteries.. 2018 , 8, 42438-42445		5
1547	ETFE-based anion-exchange membrane ionomer powders for alkaline membrane fuel cells: a first performance comparison of head-group chemistry. 2018 , 6, 24330-24341		47
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1545	Evidence for Fast Lithium-Ion Diffusion and Charge-Transfer Reactions in Amorphous TiO Nanotubes: Insights for High-Rate Electrochemical Energy Storage. 2018 , 10, 42513-42523		19
1544	Performance Metrics Required of Next-Generation Batteries to Electrify Vertical Takeoff and Landing (VTOL) Aircraft. 2018 , 3, 2989-2994		36
1543	Detrimental Effects of Chemical Crossover from the Lithium Anode to Cathode in Rechargeable Lithium Metal Batteries. 2018 , 3, 2921-2930		51
1542	High-Voltage Li-Ion Full-Cells with Ultralong Term Cycle Life at Elevated Temperature. 2018 , 8, 1802322		22
1541	Regulating hot and cold. <i>Nature Energy</i> , 2018 , 3, 826-827	62.3	1
1540	A Review of Functional Binders in LithiumSulfur Batteries. 2018 , 8, 1802107		203
1539	Polyanthraquinone-Triazine-A Promising Anode Material for High-Energy Lithium-Ion Batteries. 2018 , 10, 37023-37030		56
1538	Engineering the Interface of Carbon Electrocatalysts at the Triple Point for Enhanced Oxygen Reduction Reaction. 2018 , 24, 18374-18384		39
1537	Online monitoring of fuel starvation and water management in an operating polymer electrolyte membrane fuel cell by a novel diagnostic tool based on total harmonic distortion analysis. 2018 , 404, 81-88		10
1536	Insight into the Solvation Structure of Tetraglyme-Based Electrolytes via First-Principles Molecular Dynamics Simulation. 2018 , 122, 10014-10022		6
1535	Growth of Al and Co co-doped NiO nanosheets on carbon cloth as the air electrode for Zn-air batteries with high cycling stability. 2018 , 290, 21-29		20
1534	Recessed deposition of TiN into N-doped carbon as a cathode host for superior Li-S batteries performance. 2018 , 54, 1-9		82

1533	High-performance Na ion cathodes based on the ubiquitous and reversible O redox reaction. 2018 , 6, 24120-24127	5
1532	Exploring Indium-Based Ternary Thiospinel as Conceivable High-Potential Air-Cathode for Rechargeable Zn/Air Batteries. 2018 , 8, 1802263	164
1531	Excellent electrochemical properties of graphene-like carbon obtained from acid-treating natural black talc as Li-ion battery anode. 2018 , 289, 407-414	5
1530	Recent Advances in Materials and Design of Electrochemically Rechargeable Zinc-Air Batteries. 2018 , 14, e1801929	120
1529	Hierarchical waxberry-like LiNi _{0.5} Mn _{1.5} O ₄ as an advanced cathode material for lithium-ion batteries with a superior rate capability and long-term cyclability. 2018 , 6, 14155-14161	24
1528	Recent developments and insights into the understanding of Na metal anodes for Na-metal batteries. 2018 , 11, 2673-2695	257
1527	Three-Dimensional Flower-Like MoS ₂ @Carbon Nanotube Composites with Interconnected Porous Networks and High Catalytic Activity as Cathode for Lithium-Oxygen Batteries. 2018 , 5, 2816-2824	17
1526	Morphology controlled synthesis of SmMn ₂ O ₅ nanocrystals via a surfactant-free route for Zn-air batteries. 2018 , 396, 754-763	20
1525	A strategy for designing new AB _{4.5} -type hydrogen storage alloys with high capacity and long cycling life. 2018 , 398, 42-48	19
1524	New Interpretation of the Performance of Nickel-Based Air Electrodes for Rechargeable Zinc/Air Batteries. 2018 , 122, 20153-20166	19
1523	Adverse effects of interlayer-gliding in layered transition-metal oxides on electrochemical sodium-ion storage. 2019 , 12, 825-840	138
1522	Constructing hierarchical MnO ₂ /Co ₃ O ₄ heterostructure hollow spheres for high-performance Li-Ion batteries. 2019 , 437, 226904	21
1521	Inhibition of Ostwald ripening through surface switching species during potentiodynamic dissolution of platinum nanoparticles as an efficient strategy for platinum group metal (PGM) recovery. 2019 , 321, 134662	4
1520	Coordination-Engineered Cu _x Single-Site Catalyst for Enhancing Oxygen Reduction Reaction. 2019 , 2, 6497-6504	36
1519	Recovery of lithium from mineral resources: State-of-the-art and perspectives A review. 2019 , 189, 105129	36
1518	Effect of Ionic Liquid Modification on the ORR Performance and Degradation Mechanism of Trimetallic PtNiMo/C Catalysts. 2019 , 9, 8682-8692	35
1517	Design, synthesis and lithium-ion storage capability of Al _{0.5} Nb _{2.5} O _{6.2} . 2019 , 7, 19862-19871	75
1516	Proton conducting composite membranes based on sulfonated polysulfone and polysulfone-g-(phosphonated polystyrene) via controlled atom-transfer radical polymerization for fuel cell applications. 2019 , 338, 103-112	14

1515	Intermetallic PdPb ultrathin nanoplate-constructed flowers with low-coordinated edge sites boost oxygen reduction performance. 2019 , 11, 17301-17307	8
1514	In Situ and Operando Characterization of Proton Exchange Membrane Fuel Cells. 2019 , 31, e1901900	60
1513	Hierarchically Porous Co-N-C Cathode Catalyst Layers for Anion Exchange Membrane Fuel Cells. 2019 , 12, 4165-4169	17
1512	Electrochemical impedance spectroscopy of catalyst and carbon degradations in proton exchange membrane fuel cells. 2019 , 437, 226922	33
1511	Design and fabrication of non-noble metal catalyst-based air-cathodes for metal-air battery. 2019 , 97, 2984-2993	10
1510	Prediction of the heavy charging current effect on nickel-rich/silicon-graphite power batteries based on adiabatic rate calorimetry measurement. 2019 , 438, 226971	17
1509	CoMn spinel supported self-catalysis induced N-doped carbon nanotubes with high efficiency electron transport channels for zinc-air batteries. 2019 , 7, 22307-22313	67
1508	Vertically rooting multifunctional tentacles on carbon scaffold as efficient polysulfide barrier toward superior lithium-sulfur batteries. 2019 , 64, 103905	74
1507	Free-standing transition metal oxide electrode architectures for electrochemical energy storage. 2019 , 54, 13045-13069	13
1506	Redox-Inert Fe ³⁺ Ions in Octahedral Sites of Co-Fe Spinel Oxides with Enhanced Oxygen Catalytic Activity for Rechargeable Zinc-Air Batteries. 2019 , 131, 13425-13430	83
1505	Study on thermal stability of nickel-rich/silicon-graphite large capacity lithium ion battery. 2019 , 161, 114144	13
1504	Lithium-ion battery state-of-health estimation in electric vehicle using optimized partial charging voltage profiles. 2019 , 185, 1054-1062	38
1503	Self-humidifying novel chitosan-geopolymer hybrid membrane for fuel cell applications. 2019 , 223, 115073	10
1502	Redox-Inert Fe Ions in Octahedral Sites of Co-Fe Spinel Oxides with Enhanced Oxygen Catalytic Activity for Rechargeable Zinc-Air Batteries. 2019 , 58, 13291-13296	223
1501	A New Lithium-Ion Conductor LiTaSiO ₅ : Theoretical Prediction, Materials Synthesis, and Ionic Conductivity. 2019 , 29, 1904232	9
1500	Rapid precipitation-reduction synthesis of carbon-supported silver for efficient oxygen reduction reaction in alkaline solution. 2019 , 23, 2601-2607	2
1499	Nitrogen-doped porous carbon sponge-confined ZnO quantum dots for metal collector-free lithium ion battery. 2019 , 848, 113275	6
1498	Nanostructured Co-based bifunctional electrocatalysts for energy conversion and storage: current status and perspectives. 2019 , 7, 18674-18707	152

1497	Preparative hydrophilic interaction liquid chromatography of acidic organofluorophosphates formed in lithium ion battery electrolytes. 2019 , 1603, 438-441	3
1496	A High-Rate and Long-Life Aqueous Rechargeable Ammonium Zinc Hybrid Battery. 2019 , 12, 3732-3736	30
1495	Ni-rich LiNi _{0.6} Co _{0.2} Mn _{0.2} O ₂ nanoparticles enwrapped by a 3D graphene aerogel network as a high-performance cathode material for Li-ion batteries. 2019 , 45, 22233-22240	13
1494	Quantifying the Trade-Off between Absolute Capacity and Rate Performance in Battery Electrodes. 2019 , 9, 1901359	28
1493	CuO Nanoplates for High-Performance Potassium-Ion Batteries. 2019 , 15, e1901775	67
1492	A safe and non-flammable sodium metal battery based on an ionic liquid electrolyte. 2019 , 10, 3302	91
1491	Immobilization of Fe-Doped NiP Particles Within Biomass Agarose-Derived Porous N,P-Carbon Nanosheets for Efficient Bifunctional Oxygen Electrocatalysis. 2019 , 7, 523	10
1490	A synergetic strategy for an advanced electrode with Fe ₃ O ₄ embedded in a 3D N-doped porous graphene framework and a strong adhesive binder for lithium/potassium ion batteries with an ultralong cycle lifespan. 2019 , 7, 19430-19441	36
1489	Development of 1-D multiphysics PEMFC model with dry limiting current experimental validation. 2019 , 320, 134601	29
1488	Blocking Polysulfides in GrapheneSulfur Cathodes of LithiumSulfur Batteries through Atomic Layer Deposition of Alumina. 2019 , 7, 1900621	2
1487	Recent progress and perspectives on dual-ion batteries. 2019 , 1, 100004	72
1486	A low-toxicity and high-efficiency deep eutectic solvent for the separation of aluminum foil and cathode materials from spent lithium-ion batteries. 2019 , 380, 120846	49
1485	Designer Anion Enabling Solid-State Lithium-Sulfur Batteries. 2019 , 3, 1689-1702	70
1484	Overcoming the Challenges of 5 V Spinel LiNi _{0.5} Mn _{1.5} O ₄ Cathodes with Solid Polymer Electrolytes. 2019 , 4, 2871-2886	66
1483	Single-Atomic-Co Electrocatalysts with Self-Supported Architecture toward Oxygen-Involved Reaction. 2019 , 29, 1906477	53
1482	Intensification of Pseudocapacitance by Nanopore Engineering on Waste-Bamboo-Derived Carbon as a Positive Electrode for Lithium-Ion Batteries. 2019 , 12,	2
1481	Platinum Porous Nanosheets with High Surface Distortion and Pt Utilization for Enhanced Oxygen Reduction Catalysis. 2019 , 29, 1904429	46
1480	Differential Surface Elemental Distribution Leads to Significantly Enhanced Stability of PtNi-Based ORR Catalysts. 2019 , 1, 1567-1580	53

1479	Efficient and methanol resistant noble metal free electrocatalyst for tetraelectronic oxygen reduction reaction. 2019 , 326, 134984	7
1478	A fuzzy three-stage multi-attribute decision-making approach based on customer needs for sustainable supplier selection. 2019 , 239, 118043	49
1477	Facile synthesis of LiVO ₃ and its electrochemical behavior in rechargeable lithium batteries. 2019 , 853, 113505	8
1476	High-Rate and High-Voltage Aqueous Rechargeable Zinc Ammonium Hybrid Battery from Selective Cation Intercalation Cathode. 2019 , 2, 6984-6989	30
1475	Architected materials for advanced electrochemical systems. 2019 , 44, 789-795	6
1474	E-mobility: Safety, Service Continuity and Penetration of Charging Systems. 2019 ,	2
1473	Commencing an Acidic Battery Based on a Copper Anode with Ultrafast Proton-Regulated Kinetics and Superior Dendrite-Free Property. 2019 , 31, e1905873	46
1472	Perspective on Automation of Statistical Modeling Process for Battery Lifetime Prediction. 2019 ,	
1471	Asymmetric Temperature Modulation for Extreme Fast Charging of Lithium-Ion Batteries. 2019 , 3, 3002-3019	122
1470	Ionic Highways from Covalent Assembly in Highly Conducting and Stable Anion Exchange Membrane Fuel Cells. 2019 , 141, 18152-18159	48
1469	Systematic Comparison of Al ³⁺ Modified LiNi _{0.6} Mn _{0.2} Co _{0.2} O ₂ Cathode Material from Recycling Process. 2019 , 2, 8818-8825	4
1468	High-Performance Graphite Recovered from Spent Lithium-Ion Batteries. 2019 , 7, 19732-19738	52
1467	Gallium Nitride Nanoparticles Embedded in a Carbon Nanofiber Anode for Ultralong-Cycle-Life Lithium-Ion Batteries. 2019 , 11, 44263-44269	9
1466	Amorphous Fe-Ni-P-B-O Nanocages as Efficient Electrocatalysts for Oxygen Evolution Reaction. 2019 , 13, 12969-12979	80
1465	Superior "green" electrode materials for secondary batteries: through the footprint family indicators to analyze their environmental friendliness. 2019 , 26, 36538-36557	5
1464	The critical role of carbon in marrying silicon and graphite anodes for high-energy lithium-ion batteries. 2019 , 1, 57-76	154
1463	Effect of boron substitution on hydrogen storage in Ca/DCV graphene: A first-principle study. 2019 , 44, 27511-27528	19
1462	Novel Bird-Nest Structured Co ₃ O ₄ /Acidified Multiwall Carbon Nanotube (ACNT) Hosting Materials for Lithium Sulfur Batteries. 2019 , 2, 1348-1356	25

1461	Smart Battery Pack for Electric Vehicles Based on Active Balancing with Wireless Communication Feedback. 2019 , 12, 3862	4
1460	Subnano Amorphous Fe-Based Clusters with High Mass Activity for Efficient Electrocatalytic Oxygen Reduction Reaction. 2019 , 11, 41432-41439	11
1459	Two-Dimensional Polyphenylene Networks with Tunable Micropores for Hydrogen Storage. 2019 , 7, 18341-18349	2
1458	Phosphorization-Induced Void-Containing Fe ₃ O ₄ Nanoparticles Enabling Low Lithiation/Delithiation Potential for High-Performance Lithium-Ion Batteries. 2019 , 6, 5060-5069	10
1457	Nonlinear methods for evaluating and online predicting the lifetime of fuel cells. 2019 , 254, 113730	23
1456	Experience. 2019 ,	15
1455	A comparative energy and environmental analysis of a diesel, hybrid, hydrogen and electric urban bus. 2019 , 187, 115906	31
1454	Design strategies toward catalytic materials and cathode structures for emerging Li ₂ O ₂ batteries. 2019 , 7, 21605-21633	54
1453	Designing superior solid electrolyte interfaces on silicon anodes for high-performance lithium-ion batteries. 2019 , 11, 19086-19104	53
1452	Carbon-pore-sheathed cobalt nanoseeds: An exceptional and durable bifunctional catalyst for zinc-air batteries. 2019 , 65, 104051	33
1451	Research on integration simulation and balance control of a novel load isolated pure electric driving system. 2019 , 189, 116220	15
1450	Interlaced nickel phosphide nanoflakes wrapped orthorhombic niobium pentoxide nanowires array for sustainable aqueous asymmetric supercapacitor. 2019 , 325, 134934	16
1449	Oxygen Redox Promoted by Na Excess and Covalency in Hexagonal and Monoclinic Na ₂ VRuO ₃ Polymorphs. 2019 , 166, A5343-A5348	6
1448	Revealing the atomic ordering of binary intermetallics using in situ heating techniques at multilength scales. 2019 , 116, 1974-1983	64
1447	Nanoporous Polymer Films with a High Cation Transference Number Stabilize Lithium Metal Anodes in Light-Weight Batteries for Electrified Transportation. 2019 , 19, 1387-1394	42
1446	Three-dimensional CoNi ₂ S ₄ nanorod arrays anchored on carbon textiles as an integrated cathode for high-rate and long-life Lithium-Oxygen battery. 2019 , 301, 69-79	26
1445	Reversible Anion Storage in a Metal-Organic Framework for Dual-Ion Battery Systems. 2019 , 166, A5474-A5482	39
1444	Dual-component Li _x TiO ₂ @silica functional coating in one layer for performance enhanced LiNi _{0.6} Co _{0.2} Mn _{0.2} O ₂ cathode. 2019 , 58, 673-679	60

1443	Anchoring anions with metal-organic framework-functionalized separators for advanced lithium batteries. 2019 , 4, 705-711	53
1442	Novel SmMn ₂ O ₅ hollow long nano-cuboids for electrochemical supercapacitor and water splitting applications. 2019 , 166, 279-285	14
1441	Unravelling charge/discharge and capacity fading mechanisms in dual-graphite battery cells using an electron inventory model. 2019 , 21, 414-426	30
1440	Niobium carbide/reduced graphene oxide hybrid porous aerogel as high capacity and long-life anode material for Li-ion batteries. 2019 , 43, 4995-5003	26
1439	Recent Advances in Carbon-Based Bifunctional Oxygen Catalysts for Zinc-Air Batteries. 2019 , 2, 743-765	74
1438	Rational design of positive-hexagon-shaped two-dimensional ZIF-derived materials as improved bifunctional oxygen electrocatalysts for use as long-lasting rechargeable Zn-Air batteries. 2019 , 256, 117871	40
1437	Understanding Challenges of Cathode Materials for Sodium-Ion Batteries using Synchrotron-Based X-Ray Absorption Spectroscopy. 2019 , 2, 842-851	14
1436	Integrated Nanostructural Electrodes Based on Layered Double Hydroxides. 2019 , 2, 158-171	27
1435	Co-Rich Na CoP O Phosphates as Efficient Bifunctional Catalysts for Oxygen Evolution and Reduction Reactions in Alkaline Solution. 2019 , 25, 11007-11014	9
1434	Light-duty plug-in electric vehicles in China: An overview on the market and its comparisons to the United States. 2019 , 112, 747-761	56
1433	Three-dimensional SWCNT and MWCNT hybrid networks for extremely high-loading and high rate cathode materials. 2019 , 7, 17412-17419	7
1432	Commercialization of Lithium Battery Technologies for Electric Vehicles. 2019 , 9, 1900161	407
1431	Fuel Cell Based SI Quasi Z-Source Inverter for Motor Drive. 2019 ,	0
1430	Effect of functionalized graphene on performance of magnesium/air battery. 2019 , 6, 085528	2
1429	Superior Oxygen Electrocatalysis on Nickel Indium Thiospinels for Rechargeable Zn-Air Batteries. 2019 , 1, 123-131	135
1428	Projected economic outlook and scenario analysis for H ₂ production by alkaline water electrolysis on the basis of the unit electricity price, the learning rate, and the automation level. 2019 , 3, 1799-1807	9
1427	Preparation of spinel LiMn ₂ O ₄ with porous microscopic morphology by simple coprecipitation-microwave synthesis method. 2019 , 25, 5213-5220	2
1426	Inhibitive effect of quaternary ammonium-type surfactants on the self-corrosion of the anode in alkaline aluminium-air battery. 2019 , 434, 226723	29

1425	Advanced Multifunctional Electrocatalysts for Energy Conversion. 2019 , 4, 1672-1680	43
1424	Binder-free hierarchical VS ₂ electrodes for high-performance aqueous Zn ion batteries towards commercial level mass loading. 2019 , 7, 16330-16338	83
1423	Properties of reduced graphene oxide for Mg-air battery. 2019 , 430, 244-251	28
1422	High Lithium Ion Transport Through rGO-Wrapped LiNiCoMnO Cathode Material for High-Rate Capable Lithium Ion Batteries. 2019 , 7, 361	12
1421	Li ⁺ diffusion kinetics of SnS ₂ nanoflowers enhanced by reduced graphene oxides with excellent electrochemical performance as anode material for lithium-ion batteries. 2019 , 794, 285-293	18
1420	Strategic intentions to the diffusion of electric mobility paradigm: The case of internal combustion engine vehicle. 2019 , 230, 898-909	11
1419	Current status of automotive fuel cells for sustainable transport. 2019 , 16, 90-95	148
1418	Boosting ORR/OER Activity of Graphdiyne by Simple Heteroatom Doping. 2019 , 3, 1800550	88
1417	Metal-organic frameworks and their derivatives for metal-air batteries. 2019 , 23, 757-771	60
1416	Chlorinated Graphene via the Photodecomposition of Metal Chlorides. 2019 , 7, 11024-11034	5
1415	Exploring oxygen electrocatalytic activity and pseudocapacitive behavior of Co ₃ O ₄ nanoplates in alkaline solutions. 2019 , 310, 86-95	20
1414	The rise of the X-ray atomic pair distribution function method: a series of fortunate events. 2019 , 377, 20180413	49
1413	Benchmarking Anode Concepts: The Future of Electrically Rechargeable Zinc-Air Batteries. 2019 , 4, 1287-1300	81
1412	Transition metal ion-preintercalated V ₂ O ₅ as high-performance aqueous zinc-ion battery cathode with broad temperature adaptability. 2019 , 61, 617-625	205
1411	Stable Na Metal Anode Enabled by a Reinforced Multistructural SEI Layer. 2019 , 29, 1901924	49
1410	The rise of bio-inspired energy devices. 2019 , 23, 390-408	8
1409	Ultralow Loading and High-Performing Pt Catalyst for a Polymer Electrolyte Membrane Fuel Cell Anode Achieved by Atomic Layer Deposition. 2019 , 9, 5365-5374	21
1408	Investigating the thermal runaway mechanisms of lithium-ion batteries based on thermal analysis database. 2019 , 246, 53-64	162

1407	New insights into the phase evolution in CuS during lithiation and delithiation processes. 2019 , 7, 11699-11708	10
1406	Challenges for Electric Vehicle Adoption in Bangladesh. 2019 ,	4
1405	Natural Okra Shells Derived Nitrogen-Doped Porous Carbon to Regulate Polysulfides for High-Performance Lithium-Sulfur Batteries. 2019 , 7, 1900165	7
1404	Semiactive Hybrid Energy Management System: A Solution for Electric Wheelchairs. 2019 , 8, 345	8
1403	Analysis of technological knowledge stock and prediction of its future development potential: The case of lithium-ion batteries. 2019 , 223, 301-311	24
1402	Switch Matrix Algorithm for Series Lithium Battery Pack Equilibrium Based on Derived Acceleration Information Gauss-Seidel. 2019 , 2019, 1-9	5
1401	Surface-Driven Energy Storage Behavior of Dual-Heteroatoms Functionalized Carbon Material. 2019 , 29, 1900941	47
1400	Re-synthesis of nano-structured LiFePO ₄ /graphene composite derived from spent lithium-ion battery for booming electric vehicle application. 2019 , 419, 192-202	38
1399	Synthesis of Fe ₂ O ₃ Nanoparticle-Decorated N-Doped Reduced Graphene Oxide as an Effective Catalyst for Zn-Air Batteries. 2019 , 166, A616-A622	12
1398	New strategy for reversal tolerant anode for automotive polymer electrolyte fuel cell. 2019 , 30, 1186-1189	15
1397	Reviving bulky MoS ₂ as an advanced anode for lithium-ion batteries. 2019 , 7, 10988-10997	29
1396	U.S. end-of-life electric vehicle batteries: Dynamic inventory modeling and spatial analysis for regional solutions. 2019 , 145, 208-219	36
1395	Anion-Sorbent Composite Separators for High-Rate Lithium-Ion Batteries. 2019 , 31, e1808338	103
1394	K ₂ Ti ₆ O ₁₃ nanorods for potassium-ion battery anodes. 2019 , 841, 51-55	27
1393	Nitriding-Interface-Regulated Lithium Plating Enables Flame-Retardant Electrolytes for High-Voltage Lithium Metal Batteries. 2019 , 131, 7884-7889	35
1392	Nitriding-Interface-Regulated Lithium Plating Enables Flame-Retardant Electrolytes for High-Voltage Lithium Metal Batteries. 2019 , 58, 7802-7807	102
1391	Towards rechargeable zinc-air batteries with aqueous chloride electrolytes. 2019 , 7, 11387-11399	34
1390	Hydrogel-Derived Honeycomb Ni S /N,P-C as an Efficient Oxygen Evolution Catalyst. 2019 , 25, 7561-7568	28

1389	Polypyrrole-Coated Sodium Manganate Hollow Microspheres as a Superior Cathode for Sodium Ion Batteries. 2019 , 11, 15630-15637	21
1388	Study the Mechanism of Enhanced Li Storage Capacity through Decreasing Internal Resistance by High Electrical Conductivity via Sol-gel Electrospinning of Co ₃ O ₄ Carbon Nanofibers. 2019 , 4, 3542-3546	8
1387	Lattice constant-dependent anchoring effect of MXenes for lithium-sulfur (Li-S) batteries: a DFT study. 2019 , 11, 8485-8493	52
1386	Ultrathin TiCT (MXene) Nanosheet-Wrapped NiSe Octahedral Crystal for Enhanced Supercapacitor Performance and Synergetic Electrocatalytic Water Splitting. 2019 , 11, 31	78
1385	One-Step Integrated Surface Modification To Build a Stable Interface on High-Voltage Cathode for Lithium-Ion Batteries. 2019 , 11, 16233-16242	28
1384	Understanding the Li-ion storage mechanism in a carbon composited zinc sulfide electrode. 2019 , 7, 15640-15653	3
1383	Soluble Graphene Nanosheets for the Sunlight-Induced Photodegradation of the Mixture of Dyes and its Environmental Assessment. 2019 , 9, 2522	57
1382	Reversible hydrogen sorption behaviors of the 3NaBH ₄ -(x)YF ₃ -(1-x)GdF ₃ system: The effect of double rare earth metal cations. 2019 , 44, 4868-4877	9
1381	Methanol oxidation on pure and platinum-doped tungsten oxide supported by activated carbon. 2019 , 228, 147-159	4
1380	Sodium metal hybrid capacitors based on nanostructured carbon materials. 2019 , 418, 218-224	3
1379	Bifunctional oxygen electrocatalyst derived from photochlorinated graphene for rechargeable solid-state Zn-air battery. 2019 , 543, 84-95	16
1378	Further Insights into Structural Diversity of Phosphorus-Based Decomposition Products in Lithium Ion Battery Electrolytes via Liquid Chromatographic Techniques Hyphenated to Ion Trap-Time-of-Flight Mass Spectrometry. 2019 , 91, 3980-3988	15
1377	Single atomic Ag enhances the bifunctional activity and cycling stability of MnO ₂ . 2019 , 366, 631-638	52
1376	Detecting Li Dendrites in a Two-Electrode Battery System. 2019 , 31, e1807405	27
1375	Ultrafine Copper Nanopalm Tree-Like Framework Decorated with Iron Oxide for Li-Ion Battery Anodes with Exceptional Rate Capability and Cycling Stability. 2019 , 9, 1803764	14
1374	Development of a Polymeric Arrayed Waveguide Grating Interrogator for Fast and Precise Lithium-Ion Battery Status Monitoring. 2019 , 5, 66	5
1373	Factors Analysis on Chinese Consumers' Attitude towards Electric Vehicles Based on Online Reviews. 2019 , 688, 055038	0
1372	Multi-Receiver Dynamic Wireless Charging System's Architecture as a Means to Mitigate Voltage Pulsations at the Receiver: A Simulation Study. 2019 ,	0

1371	A Facile, One-Step Synthesis of Silicon/Silicon Carbide/Carbon Nanotube Nanocomposite as a Cycling-Stable Anode for Lithium Ion Batteries. 2019 , 9,	28
1370	Dendrite-free lithium-metal batteries at high rate realized using a composite solid electrolyte with an ester-PO ₄ complex and stable interphase. 2019 , 7, 23173-23181	13
1369	A sandwich-like Si/SiC/nanographite sheet as a high performance anode for lithium-ion batteries. 2019 , 48, 17683-17690	33
1368	A Photo-Assisted Chargeable Aqueous Zinc-Iodine Battery. 2019 , 6, 5872-5875	13
1367	Controlled Surface Elemental Distribution Enhances Catalytic Activity and Stability. 2019 , 1, 1447-1449	6
1366	Extreme Fast Charging of Electric Vehicles: A Technology Overview. 2019 , 5, 861-878	142
1365	Advances in sodium secondary batteries utilizing ionic liquid electrolytes. 2019 , 12, 3247-3287	88
1364	Paper-based microfluidic aluminum-air batteries: toward next-generation miniaturized power supply. 2019 , 19, 3438-3447	31
1363	Highly proton conductive membranes based on carboxylated cellulose nanofibres and their performance in proton exchange membrane fuel cells. 2019 , 7, 25032-25039	19
1362	In-situ growth of Co ₃ O ₄ nanowire-assembled clusters on nickel foam for aqueous rechargeable Zn-Co ₃ O ₄ and Zn-air batteries. 2019 , 241, 104-112	122
1361	Elucidating Lithium Alloying-Induced Degradation Evolution in High-Capacity Electrodes. 2019 , 11, 563-577	1
1360	Automotive Li-Ion Batteries: Current Status and Future Perspectives. 2019 , 2, 1-28	396
1359	Component-Dependent Electrocatalytic Activity of Ultrathin PdRh Alloy Nanocrystals for the Formate Oxidation Reaction. 2019 , 7, 2830-2836	31
1358	Theoretical versus Practical Energy: A Plea for More Transparency in the Energy Calculation of Different Rechargeable Battery Systems. 2019 , 9, 1803170	195
1357	Well-dispersed CoO embedded in 3D N-S-doped carbon framework through morphology-retaining pyrolysis as efficient oxygen reduction and evolution electrocatalyst. 2019 , 295, 624-631	18
1356	Water in Rechargeable Multivalent-Ion Batteries: An Electrochemical Pandora's Box. 2019 , 12, 379-396	48
1355	Ultrathin Sb ₂ S ₃ nanosheet anodes for exceptional pseudocapacitive contribution to multi-battery charge storage. 2019 , 20, 36-45	42
1354	Active Sites and Mechanism of Oxygen Reduction Reaction Electrocatalysis on Nitrogen-Doped Carbon Materials. 2019 , 31, e1804297	252

1353	Conjugated Cobalt Polyphthalocyanine as the Elastic and Reprocessable Catalyst for Flexible Li-CO Batteries. 2019 , 31, e1805484	66
1352	NiCo ₂ S ₄ Nanorod Arrays Supported on Carbon Textile as a Free-Standing Electrode for Stable and Long-Life Lithium-Oxygen Batteries. 2019 , 6, 349-358	12
1351	Recent Progress in Electrically Rechargeable Zinc-Air Batteries. 2019 , 31, e1805230	204
1350	Nanocoating of Ce-tannic acid metal-organic coordination complex: surface modification of layered Li _{1.2} Mn _{0.6} Ni _{0.2} O ₂ by CeO ₂ coating for lithium-ion batteries. 2019 , 25, 3031-3040	5
1349	Fused Aromatic Network Structures as a Platform for Efficient Electrocatalysis. 2019 , 31, e1805062	22
1348	Zn@C CoreShell Nanocomposite for Rechargeable Aqueous Zn//MnO ₂ Batteries with Long Lifetime. 2019 , 7, 1800912	14
1347	Understanding the role of conductive polymer in thermal lithiation and battery performance of Li-Sn alloy anode. 2019 , 20, 7-13	14
1346	Two-Step Activated Carbon Cloth with Oxygen-Rich Functional Groups as a High-Performance Additive-Free Air Electrode for Flexible ZincAir Batteries. 2019 , 9, 1802936	99
1345	Robust Pitch on Silicon NanolayerEmbedded Graphite for Suppressing Undesirable Volume Expansion. 2019 , 9, 1803121	60
1344	In situ synthesis of open hollow tubular MnO/C with high performance anode materials for lithium ion batteries using kapok fiber as carbon matrix. 2019 , 30, 015403	9
1343	Pt-Zn/HZSM-5 as a highly selective catalyst for the Co-aromatization of methane and light straight run naphtha. 2019 , 236, 1301-1310	20
1342	Synthesis Strategies and Structural Design of Porous Carbon-Incorporated Anodes for Sodium-Ion Batteries. 2020 , 4, 1900163	30
1341	Graphene for Energy Storage and Conversion: Synthesis and Interdisciplinary Applications. 2020 , 3, 395-430	39
1340	Integration of Graphite and Silicon Anodes for the Commercialization of High-Energy Lithium-Ion Batteries. 2020 , 59, 110-135	207
1339	Graphit- und-Silicium-Anoden für Lithiumionen- Hochenergiebatterien. 2020 , 132, 112-138	10
1338	Heterointerface engineering for enhancing the electrochemical performance of solid oxide cells. 2020 , 13, 53-85	101
1337	Interface-engineered metallic 1T-MoS ₂ nanosheet array induced via palladium doping enabling catalysis enhancement for lithium-oxygen battery. 2020 , 382, 122854	31
1336	TiC supported amorphous MnO _x as highly efficient bifunctional electrocatalyst for corrosion resistant oxygen electrode of Zn-air batteries. 2020 , 67, 104208	53

1335	Tin oxide electrodes in Li and Na-ion batteries. 2020 , 411-439	2
1334	Performance improvement by novel activation process effect of aqueous organic redox flow battery using Tiron and anthraquinone-2,7-disulfonic acid redox couple. 2020 , 383, 123085	21
1333	Dendrite-free cross-link network using bio-inspired ion-conducting membrane. 2020 , 595, 117519	
1332	Zero-emission vehicle exposure within U.S. carsharing fleets and impacts on sentiment toward electric-drive vehicles. 2020 , 85, A23-A32	25
1331	An electrolyte additive capable of scavenging HF and PF5 enables fast charging of lithium-ion batteries in LiPF6-based electrolytes. 2020 , 446, 227366	48
1330	Atomic layer-deposited nanostructures and their applications in energy storage and sensing. 2020 , 35, 701-719	16
1329	The interaction of subunits inside superlattice structure and its impact on the cycling stability of AB4-type LaMgNi-based hydrogen storage alloys for nickel-metal hydride batteries. 2020 , 445, 227273	14
1328	Passive and Active Coupling Comparison of Fuel Cell and Supercapacitor for a Three-Wheel Electric Vehicle. 2020 , 20, 351-361	8
1327	Porous nitrogen-doped carbon/carbon nanocomposite electrodes enable sodium ion capacitors with high capacity and rate capability. 2020 , 67, 104240	31
1326	An Adaptive State Machine Based Energy Management Strategy for a Multi-Stack Fuel Cell Hybrid Electric Vehicle. 2020 , 69, 220-234	46
1325	Development and Investigation of a NASICON-Type High-Voltage Cathode Material for High-Power Sodium-Ion Batteries. 2020 , 132, 2470-2477	15
1324	Development and Investigation of a NASICON-Type High-Voltage Cathode Material for High-Power Sodium-Ion Batteries. 2020 , 59, 2449-2456	60
1323	Layered Co/Ni-free Mn-rich oxide P2-Na ₂ /3Mn _{0.8} Fe _{0.1} Mg _{0.1} O ₂ as high-performance cathode material for sodium-ion batteries. 2020 , 26, 735-743	10
1322	Designing Advanced Catalysts for Energy Conversion Based on Urea Oxidation Reaction. 2020 , 16, e1906133	118
1321	Boosting High-Rate Zinc-Storage Performance by the Rational Design of MnO Nanoporous Architecture Cathode. 2019 , 12, 14	27
1320	Three dimensional Ni ₃ S ₂ nanorod arrays as multifunctional electrodes for electrochemical energy storage and conversion applications. 2020 , 2, 478-488	7
1319	Vehicle-to-Everything (V2X) energy services, value streams, and regulatory policy implications. 2020 , 137, 111136	26
1318	Synthesis of ternary metal oxides as positive electrodes for Mg-Li hybrid ion batteries. 2020 , 12, 924-932	21

1317	Emerging polyanionic and organic compounds for high energy density, non-aqueous potassium-ion batteries. 2020 , 8, 16061-16080	22
1316	Collaborative Design of Hollow Nanocubes, In Situ Cross-Linked Binder, and Amorphous Void@SiO ₂ @C as a Three-Pronged Strategy for Ultrastable Lithium Storage. 2020 , 16, e1905736	26
1315	Enhancing proton exchange membrane fuel cell performance via graphene oxide surface synergy. 2020 , 261, 114277	7
1314	Phosphorus-sulfur/graphene composites as flexible lithium-sulfur battery cathodes with super high volumetric capacity. 2020 , 387, 123904	13
1313	Fractional calculus based modeling of open circuit voltage of lithium-ion batteries for electric vehicles. 2020 , 27, 100945	16
1312	Room-Temperature Crosslinkable Natural Polymer Binder for High-Rate and Stable Silicon Anodes. 2020 , 30, 1908433	52
1311	Improving Lithium-Metal Battery Performance under the Conditions of Lean Electrolyte through MoS ₂ Coating. 2020 , 7, 890-892	6
1310	Cage-confinement pyrolysis route to size-controlled molybdenum-based oxygen electrode catalysts: From isolated atoms to clusters and nanoparticles. 2020 , 67, 104288	65
1309	Recent Progress of Metal Carbides Encapsulated in Carbon-Based Materials for Electrocatalysis of Oxygen Reduction Reaction. 2020 , 4, 1900575	41
1308	Unlocking the Poly(vinylidene fluoride-co-hexafluoropropylene)/Li ₁₀ GeP ₂ S ₁₂ composite solid-state Electrolytes for Dendrite-Free Li metal batteries assisting with perfluoropolyethers as bifunctional adjuvant. 2020 , 446, 227365	42
1307	Enhanced Ionic/Electronic Transport in Nano-TiO ₂ /Sheared CNT Composite Electrode for Na ⁺ Insertion-based Hybrid Ion-Capacitors. 2020 , 30, 1908309	34
1306	Tailoring the Pore Size of a Polypropylene Separator with a Polymer Having Intrinsic Nanoporosity for Suppressing the Polysulfide Shuttle in Lithium-Sulfur Batteries. 2020 , 10, 1902872	41
1305	Reducing the shuttle effect with the interactions of polar TiN and non-polar graphene for lithium-sulfur batteries. 2020 , 22, 1555-1559	3
1304	Evidence for interfacial geometric interactions at metal-support interfaces and their influence on the electroactivity and stability of Pt nanoparticles. 2020 , 8, 1368-1377	10
1303	Crack-free single-crystalline Ni-rich layered NCM cathode enable superior cycling performance of lithium-ion batteries. 2020 , 70, 104450	165
1302	ZnMn ₂ O ₄ /milk-derived Carbon hybrids with enhanced Lithium storage capability. 2020 , 45, 6874-6884	8
1301	Strategic Pore Architecture for Accommodating Volume Change from High Si Content in Lithium-Ion Battery Anodes. 2020 , 10, 1903400	22
1300	Fully Conjugated Phthalocyanine Copper Metal-Organic Frameworks for Sodium-Iodine Batteries with Long-Time-Cycling Durability. 2020 , 32, e1905361	83

1299	On the facile and accurate determination of the Pt content in standard carbon supported Pt fuel cell catalysts. 2020 , 1101, 41-49	3
1298	Comparative study of thermal runaway and cell failure of lab-scale Li-ion batteries using accelerating rate calorimetry. 2020 , 83, 247-251	9
1297	Stable and High-Capacity Si Electrodes with Free-Standing Architecture for Lithium-Ion Batteries. 2020 , 3, 208-217	5
1296	Synergistic coupling of Co ₄ N/VN confined in N-doped carbon derived from zeolitic imidazolate frameworks for oxygen reduction reaction. 2020 , 159, 16-24	16
1295	Elucidating Interfacial Phenomena between Solid-State Electrolytes and the Sulfur-Cathode of Lithium-Sulfur Batteries. 2020 , 32, 360-373	17
1294	A Triphasic Bifunctional Oxygen Electrocatalyst with Tunable and Synergetic Interfacial Structure for Rechargeable Zn-Air Batteries. 2020 , 10, 1903003	42
1293	Electric vehicles. 2020 , 145-163	2
1292	MnO Nanosheet-Assembled Hollow Polyhedron Grown on Carbon Cloth for Flexible Aqueous Zinc-Ion Batteries. 2020 , 13, 1537-1545	66
1291	Fe/N-doped hollow porous carbon spheres for oxygen reduction reaction. 2020 , 31, 125404	8
1290	In Situ Transmission Electron Microscopy on Energy-Related Catalysis. 2020 , 10, 1902105	38
1289	Two-Dimensional Material-Functionalized Separators for High-Energy-Density Metal-Sulfur and Metal-Based Batteries. 2020 , 13, 1366-1378	14
1288	Graphene-like C ₃ N/blue phosphorene heterostructure as a potential anode material for Li/Na-ion batteries: A first principles study. 2020 , 345, 115160	14
1287	Power sources sizing for a fuel cell hybrid vehicle. 2020 , 2, e124	1
1286	Chemical binding and conformal coating of sub-10 nm Sn ₄ Bi alloy layer on nanostructured carbon matrices enabling enhanced lithium storage. 2020 , 400, 126068	1
1285	Processing Strategies to Improve Cell-Level Energy Density of Metal Sulfide Electrolyte-Based All-Solid-State Li Metal Batteries and Beyond. 2020 , 5, 3468-3489	31
1284	In-situ reducing synthesis of MoP@nitrogen-doped carbon nanofibers as an anode material for lithium/sodium-ion batteries. 2020 , 358, 136921	11
1283	Breaking Free from Cobalt Reliance in Lithium-Ion Batteries. 2020 , 23, 101505	30
1282	Application-oriented modeling and optimization of tailored Li-ion batteries using the concept of Diffusion Limited C-rate. 2020 , 479, 228704	11

1281	Lithium-ion batteries [Current state of the art and anticipated developments. 2020 , 479, 228708	146
1280	Recent developments and challenges of Li-rich Mn-based cathode materials for high-energy lithium-ion batteries. 2020 , 18, 100518	17
1279	The toxicity of lithium to human cardiomyocytes. 2020 , 32,	7
1278	Novel method for the on-line estimation of low-frequency impedance of lithium-ion batteries. 2020 , 32, 101818	6
1277	Is the H economy realizable in the foreseeable future? Part III: H usage technologies, applications, and challenges and opportunities. 2020 , 45, 28217-28239	58
1276	Lithium Metal-Based Composite: An Emerging Material for Next-Generation Batteries. 2020 , 3, 1009-1030	12
1275	Rational molecular design of anion exchange membranes functionalized with alicyclic quaternary ammonium cations. 2020 , 11, 6953-6963	19
1274	Challenges in the designing, planning and deployment of hydrogen refueling infrastructure for fuel cell electric vehicles. 2020 , 6, 100086	29
1273	Supermicroporous carbons with nitrogen and defect co-doped as high-efficient oxygen reduction catalysts in both alkaline and acidic medium. 2020 , 362, 137225	4
1272	Strategies to accelerate the production and diffusion of fuel cell electric vehicles: Experiences from California. 2020 , 6, 2503-2519	20
1271	Uncovering the Chemistry of Cross-Linked Polymer Binders via Chemical Bonds for Silicon-Based Electrodes. 2020 , 12, 47164-47180	11
1270	Theory of battery ageing in a lithium-ion battery: Capacity fade, nonlinear ageing and lifetime prediction. 2020 , 478, 229026	38
1269	High Voltage Stable Li Metal Batteries Enabled by Ether-Based Highly Concentrated Electrolytes at Elevated Temperatures. 2020 , 167, 110543	9
1268	Evaluation of band edge parameters, Li ion dynamics and excellent electrochemical properties of Li ₄ Ti ₅ O ₁₂ anode thin films. 2020 , 354, 136741	2
1267	A robust approach to state of charge assessment based on moving horizon optimal estimation considering battery system uncertainty and aging condition. 2020 , 270, 122508	6
1266	Development and key technologies of pure electric construction machinery. 2020 , 132, 110080	18
1265	Energizing Fuel Cells with an Electrically Rechargeable Liquid Fuel. 2020 , 1, 100102	11
1264	Origin of intergranular Li metal propagation in garnet-based solid electrolyte by direct electronic structure analysis and performance improvement by bandgap engineering. 2020 , 8, 16892-16901	9

1263	Hierarchical Porous Manganese- and Nitrogen-Codoped Carbon Nanosheets Derived from Surface Modified Biomass as Efficient Oxygen Reduction Catalysts for Al-Air Batteries. 2020 , 167, 110552	8
1262	In Situ Growth of Co ₄ N Nanoparticles Embedded Nitrogen-Doped Carbon Nanotubes on Metal-Organic Framework Derived Carbon Composite as Highly Efficient Electrocatalyst for Oxygen Reduction and Evolution Reactions. 2020 , 8, 2000409	4
1261	Microstructured Sulfur-Doped Carbon-Coated Fe ₇ S ₈ Composite for High-Performance Lithium and Sodium Storage. 2020 , 8, 11783-11794	16
1260	Two-dimensional Noble Metal Nanomaterials for Electrocatalysis. 2020 , 36, 597-610	3
1259	Developing high safety Li-metal anodes for future high-energy Li-metal batteries: strategies and perspectives. 2020 , 49, 5407-5445	121
1258	Effects of Carbon-Based Electrode Materials for Excess Sodium Metal Anode Engineered Rechargeable Sodium Batteries. 2020 , 8, 17697-17706	3
1257	Design Strategies of Safe Electrolytes for Preventing Thermal Runaway in Lithium Ion Batteries. 2020 , 32, 9821-9848	23
1256	Synthesis of MgNiO ₂ /CoNC-Based Ternary Metallic Dual-Active Interfacial Porous Hollow Nanocages as Efficient Oxygen Reduction Reaction and Oxygen Evolution Reaction Bi-Functional Electrocatalysts. 2020 , 7,	
1255	Current State and Future Prospects for Electrochemical Energy Storage and Conversion Systems. 2020 , 13, 5847	24
1254	d-Orbital steered active sites through ligand editing on heterometal imidazole frameworks for rechargeable zinc-air battery. 2020 , 11, 5858	49
1253	Ultrahigh voltage and energy density aluminum-air battery based on aqueous alkaline-acid hybrid electrolyte. 2020 , 44, 10652-10661	4
1252	Self-Healing Double-Cross-Linked Supramolecular Binders of a Polyacrylamide-Grafted Soy Protein Isolate for LiB Batteries. 2020 , 8, 12799-12808	18
1251	Multiscale Hierarchically Engineered Carbon Nanosheets Derived from Covalent Organic Framework for Potassium-Ion Batteries. 2020 , 4, 2000159	18
1250	A green and facile approach for regeneration of graphite from spent lithium ion battery. 2020 , 277, 123585	31
1249	Shaping a Doped Perovskite Oxide with Measured Grain Boundary Defects to Catalyze Bifunctional Oxygen Activation for a Rechargeable Zn-Air Battery. 2020 , 12, 40355-40363	7
1248	Techno-economic feasibility study on electric vehicle and renewable energy integration: A case study. 2020 , 2, e197	8
1247	Multiscale 3D hybrid carbon microelectrodes with candle soot and reduced GO nanoparticles as binder-free anode: An approach beyond 3D for high rate & high performance Li-ion batteries. 2020 , 473, 228600	5
1246	Self-Sacrificing Template-Derived Hollow-Structured NiCo ₂ S ₄ Spheres with Highly Efficient Supercapacitance Performance. 2020 , 34, 10203-10210	12

1245	Efficient bi-directional OER/ORR catalysis of metal-free C ₆ H ₄ NO ₂ /g-C ₃ N ₄ : Density functional theory approaches. 2020 , 531, 147292	8
1244	TiO ₂ /carbon nanofibers doped with phosphorus as anodes for hybrid Li-ion capacitors. 2020 , 473, 228551	13
1243	Towards a high-performance garnet-based solid-state Li metal battery: A perspective on recent advances. 2020 , 472, 228571	6
1242	In operando visualization of electrolyte stratification dynamics in lead-acid battery using phase-contrast X-ray imaging. 2020 , 56, 9553-9556	5
1241	Scalable Life-Cycle Inventory for Heavy-Duty Vehicle Production. 2020 , 12, 5396	9
1240	COVID, CITIES and CLIMATE: Historical Precedents and Potential Transitions for the New Economy. 2020 , 4, 32	44
1239	An Energy-Dense Solvent-Free Dual-Ion Battery. 2020 , 30, 2003557	14
1238	A Cu and Fe dual-atom nanozyme mimicking cytochrome c oxidase to boost the oxygen reduction reaction. 2020 , 8, 16994-17001	41
1237	Role of mechanical milling on the synthesis and ionic transport properties of fast fluoride ion conducting materials. 2020 , 24, 2219-2232	5
1236	Decoupled low-cost ammonium-based electrolyte design for highly stable zinc/bromine redox flow batteries. 2020 , 32, 465-476	15
1235	Nanocomposite Ionogel Electrolytes for Solid-State Rechargeable Batteries. 2020 , 10, 2002135	13
1234	To effectively drive the conversion of sulfur with electroactive niobium tungsten oxide microspheres for lithium-sulfur battery. 2020 , 77, 105173	41
1233	Dynamic Simulation and Control of a New Parallel Hybrid Power System. 2020 , 10, 5467	2
1232	Biogas-based fuels as renewable energy in the transport sector: an overview of the potential of using CBG, LBG and other vehicle fuels produced from biogas. 2020 , 1-13	12
1231	A review of composite solid-state electrolytes for lithium batteries: fundamentals, key materials and advanced structures. 2020 , 49, 8790-8839	153
1230	Exploiting Self-Healing in Lithium Batteries: Strategies for Next-Generation Energy Storage Devices. 2020 , 10, 2002815	23
1229	Implications of road transport electrification: A long-term scenario-dependent analysis in China. 2020 , 6, 100072	6
1228	Carbon foams: 3D porous carbon materials holding immense potential. 2020 , 8, 23699-23723	27

1227	Simple analytical method for determining electrical resistivity and sheet resistance using the van der Pauw procedure. 2020 , 10, 16379	8
1226	Promoting electrochemical performances of LiNi _{0.5} Mn _{1.5} O ₄ cathode via YF ₃ surface coating. 2020 , 357, 115464	7
1225	Highly Reversible Na-Intercalation into Graphite Recovered from Spent Li-Ion Batteries for High-Energy Na-Ion Capacitor. 2020 , 13, 5654-5663	12
1224	Multifunctional Polypropylene Separator via Cooperative Modification and Its Application in the Lithium-Sulfur Battery. 2020 , 36, 11147-11153	11
1223	Opportunities and Challenges of High-Energy Lithium Metal Batteries for Electric Vehicle Applications. 2020 , 5, 3140-3151	72
1222	An ultrasound-triggered cation chelation and reassembly route to one-dimensional Ni-rich cathode material enabling fast charging and stable cycling of Li-ion batteries. 2020 , 13, 3347-3357	9
1221	The lightest solid meets the lightest gas: an overview of carbon aerogels and their composites for hydrogen related applications. 2020 , 12, 19536-19556	19
1220	Piper longum Extract-Mediated Green Synthesis of Porous Cu ₂ O:Mo Microspheres and Their Superior Performance as Active Anode Material in Lithium-Ion Batteries. 2020 , 8, 14557-14567	8
1219	A hybrid transition metal nanocrystal-embedded graphitic carbon nitride nanosheet system as a superior oxygen electrocatalyst for rechargeable Zn-air batteries. 2020 , 12, 19644-19654	9
1218	Surface and Interface Modification of Electrode Materials for Lithium-Ion Batteries With Organic Liquid Electrolyte. 2020 , 8,	4
1217	Between Liquid and All Solid: A Prospect on Electrolyte Future in Lithium-Ion Batteries for Electric Vehicles. 2020 , 8, 2000580	13
1216	PVA-ZrO ₂ multilayer composite separator with enhanced electrolyte property and mechanical strength for lithium-ion batteries. 2020 , 46, 29212-29221	17
1215	Learned experiences from the policy and roadmap of advanced countries for the strategic orientation to electric vehicles: A case study in Vietnam. 2020 , 1-10	4
1214	Electric Vehicles and Biofuels Synergies in the Brazilian Energy System. 2020 , 13, 4423	5
1213	A New Hybrid Software Tool for the Simulation of Energy Usage in a Population of Electric Vehicles. 2020 ,	1
1212	High-Performance Nitrogen-Doped Intermetallic PtNi Catalyst for the Oxygen Reduction Reaction. 2020 , 10, 10637-10645	38
1211	Boosting oxygen electrocatalytic reactions with Mn ₃ O ₄ /self-growth N-doped carbon nanotubes induced by transition metal cobalt. 2020 , 10, 7256-7261	12
1210	Computational screening of efficient graphene-supported transition metal single atom catalysts toward the oxygen reduction reaction. 2020 , 8, 19319-19327	18

1209	Study on Fast Cold Start-Up Method of Proton Exchange Membrane Fuel Cell Based on Electric Heating Technology. 2020 , 13, 4456	6
1208	Challenges and Strategies to Advance High-Energy Nickel-Rich Layered Lithium Transition Metal Oxide Cathodes for Harsh Operation. 2020 , 30, 2004748	55
1207	The New Neighbor across the Street: An Outlook for Battery Electric Vehicles Adoption in Brazil. 2020 , 11, 60	5
1206	Tungsten disulfide: synthesis and applications in electrochemical energy storage and conversion. 2020 , 2, 217-239	11
1205	Electrochemical Compression Technologies for High-Pressure Hydrogen: Current Status, Challenges and Perspective. 2020 , 3, 690-729	13
1204	Size-dependent electrocatalytic activity of ORR/OER on palladium nanoclusters anchored on defective MoS ₂ monolayers. 2020 , 44, 16135-16143	5
1203	Green electrochemical redox mediation for valuable metal extraction and recycling from industrial waste. 2020 , 22, 6288-6309	20
1202	Recent Progress in the Development of Composite Membranes Based on Polybenzimidazole for High Temperature Proton Exchange Membrane (PEM) Fuel Cell Applications. 2020 , 12,	33
1201	Ultrathin porous graphitic carbon nanosheets activated by alkali metal salts for high power density lithium-ion capacitors. 2020 , 39, 1364-1373	21
1200	Biomass-derived nonprecious metal catalysts for oxygen reduction reaction: The demand-oriented engineering of active sites and structures. 2020 , 2, 561-581	28
1199	3D Hollow rGO Microsphere Decorated with ZnO Nanoparticles as Efficient Sulfur Host for High-Performance Li-S Battery. 2020 , 10,	5
1198	Toward understanding the real mechanical robustness of composite electrode impregnated with a liquid electrolyte. 2020 , 21, 100809	4
1197	Is It Possible to Develop Electromobility in Urban Passenger Shipping in Post-Communist Countries? Evidence from Gdańsk, Poland. 2020 , 13, 6362	6
1196	Tuning the Electronic Structures of Multimetal Oxide Nanoplates to Realize Favorable Adsorption Energies of Oxygenated Intermediates. 2020 ,	19
1195	A Cation-Tethered Flowable Polymeric Interface for Enabling Stable Deposition of Metallic Lithium. 2020 , 142, 21393-21403	24
1194	South Korea's big move to hydrogen society. 2020 , 6, 1856459	1
1193	From Cell to Battery System in BEVs: Analysis of System Packing Efficiency and Cell Types. 2020 , 11, 77	24
1192	An overview of the characteristics of advanced binders for high-performance LiS batteries. 2020 ,	4

1191	Future material demand for automotive lithium-based batteries. 2020 , 1,	80
1190	Investigations and fabrication of Ni(OH) ₂ encapsulated carbon nanotubes nanocomposites based asymmetrical hybrid electrochemical supercapacitor. 2020 , 32, 101934	10
1189	Design Method of Double-Boost DC/DC Converter with High Voltage Gain for Electric Vehicles. 2020 , 11, 64	6
1188	Preferentially Engineering FeN Edge Sites onto Graphitic Nanosheets for Highly Active and Durable Oxygen Electrocatalysis in Rechargeable Zn-Air Batteries. 2020 , 32, e2004900	94
1187	The Role of Batteries for the Successful Transition to Renewable Energy Sources. 2020 , 1-9	0
1186	The Industrial World in the Twenty-First Century. 2020 , 613-648	1
1185	Side by Side Battery Technologies with Lithium-Ion Based Batteries. 2020 , 10, 2000089	64
1184	Enhanced rate performance and cycle stability of LiNi _{0.6} Co _{0.2} Mn _{0.2} O ₂ at high cut-off voltage by Li _{6.1} La ₃ Al _{0.3} Zr ₂ O ₁₂ surface modification. 2020 , 524, 146556	11
1183	Revealing Li Metal Anode Surface Evolution upon Exposure to CO Using Ambient Pressure X-Ray Photoelectron Spectroscopy. 2020 , 12, 26607-26613	8
1182	Enabling High Power Density Fuel Cells by Evaporative Cooling with Advanced Porous Media. 2020 , 167, 084518	5
1181	Trifunctional Electrocatalysts with High Efficiency for the Oxygen Reduction Reaction, Oxygen Evolution Reaction, and Na-O Battery in Heteroatom-Doped Janus Monolayer MoSSe. 2020 , 12, 24066-24073	17
1180	Cold Sintering as a Cost-Effective Process to Manufacture Porous Zinc Electrodes for Rechargeable Zinc-Air Batteries. 2020 , 8, 592	7
1179	New Perspectives on Fuel Cell Technology: A Brief Review. 2020 , 10,	53
1178	Sandwiched Cu ₇ S ₄ @graphite felt electrode for high performance aqueous polysulfide/iodide redox flow batteries: Enhanced cycling stability and electrocatalytic dynamics of polysulfides. 2020 , 250, 123143	6
1177	Overcoming barriers to developing and diffusing fuel-cell vehicles: Governance strategies and experiences in Japan. 2020 , 142, 111533	21
1176	Highly safe and cyclable Li-metal batteries with vinylene carbonate electrolyte. 2020 , 74, 104860	28
1175	Corrosion-Induced Microstructural Variability Affects Transport-Kinetics Interaction in PEM Fuel Cell Catalyst Layers. 2020 , 167, 084519	6
1174	Progress and Challenges on Battery Waste Management :A Critical Review. 2020 , 5, 6182-6193	7

1173	Performance improvement of N-doped carbon ORR catalyst via large through-hole structure. 2020 , 31, 335717	9
1172	Core temperature modelling and monitoring of lithium-ion battery in the presence of sensor bias. 2020 , 271, 115243	15
1171	Lithium Oxygen Batteries. 2020 , 1-42	
1170	12 years roadmap of the sulfur cathode for lithium sulfur batteries (2009-2020). 2020 , 30, 346-366	98
1169	Characteristics of intraphase transport processes in methanol reforming microchannel reactors: A computational fluid dynamics study. 2020 , 45, 17088-17103	1
1168	A review on alternative fuels in future energy system. 2020 , 128, 109927	88
1167	Reviving zinc-air batteries with high-density metal particles on carbon. 2020 , 65, 1511-1513	3
1166	Symmetry-Induced Emergent Electrochemical Properties for Rechargeable Batteries. 2020 , 1, 100066	5
1165	Enhancing the Performance of a Self-Standing Si/PCNF Anode by Optimizing the Porous Structure. 2020 , 12, 27219-27225	9
1164	Engineering Electrolytic Silicon Carbon Composites by Tuning the In Situ Magnesium Oxide Space Holder: Molten-Salt Electrolysis of Carbon-Encapsulated Magnesium Silicates for Preparing Lithium-Ion Battery Anodes. 2020 , 8, 9866-9874	10
1163	Anode purge management for hydrogen utilization and stack durability improvement of PEM fuel cell systems. 2020 , 275, 115110	24
1162	Multicomponent design of Fe ₃ O ₄ nanosheet-based binder-free anodes with a special substrate for supercapacitors. 2020 , 469, 228307	17
1161	Ionic Liquid Additives for the Mitigation of Nafion Specific Adsorption on Platinum. 2020 , 10, 7691-7698	14
1160	A numerical study of unintended hydrogen release in a hydrogen refueling station. 2020 , 45, 20142-20152	7
1159	High performance multicomponent bifunctional catalysts for overall water splitting. 2020 , 8, 13795-13805	27
1158	Efficient Low-Temperature Cycling of Lithium Metal Anodes by Tailoring the Solid-Electrolyte Interphase. 2020 , 5, 2411-2420	69
1157	What are the critical barriers to the development of hydrogen refueling stations in China? A modified fuzzy DEMATEL approach. 2020 , 142, 111495	49
1156	A cycling robust network binder for high performance Si-based negative electrodes for lithium-ion batteries. 2020 , 578, 452-460	14

1155	Metal-Supported Solid Oxide Fuel Cells with Exceptionally High Power Density for Range Extender Systems. 2020 , 1, 100072	24
1154	Activating Li ₂ S as the Lithium-Containing Cathode in Lithium-Sulfur Batteries. 2020 , 5, 2234-2245	59
1153	A compact silicon-carbon composite with an embedded structure for high cycling coulombic efficiency anode materials in lithium-ion batteries. 2020 , 7, 2487-2496	14
1152	Detection of oxygen starvation during carbon corrosion in proton exchange membrane fuel cells using low-frequency electrochemical impedance spectroscopy. 2020 , 470, 228285	18
1151	High Ion Conductivity and Diffusivity in the Anion Exchange Membrane Enabled by Tethering with Multication Strings on the Poly(biphenyl alkylene) Backbone. 2020 , 3, 6268-6279	19
1150	Insights into the morphology and composition effects of one-dimensional CuPt nanostructures on the electrocatalytic activities and methanol oxidation mechanism by in situ FTIR. 2020 , 12, 13688-13696	10
1149	A scalable top-down strategy toward practical metrics of Ni ₂ N aqueous batteries with total energy densities of 165 W h kg ⁻¹ and 506 W h L ⁻¹ . 2020 , 13, 4157-4167	72
1148	Mn ₃ O ₄ nanoparticle-decorated hollow mesoporous carbon spheres as an efficient catalyst for oxygen reduction reaction in Zn-air batteries. 2020 , 2, 3367-3374	7
1147	A novel approach to ligand-exchange rates applied to lithium-ion battery and sodium-ion battery electrolytes. 2020 , 152, 234104	12
1146	Incorporating the Nanoscale Encapsulation Concept from Liquid Electrolytes into Solid-State Lithium-Sulfur Batteries. 2020 , 20, 5496-5503	15
1145	Bridging Tools to Better Understand Environmental Performances and Raw Materials Supply of Traction Batteries in the Future EU Fleet. 2020 , 13, 2513	8
1144	Energy Management on Battery/Ultracapacitor Hybrid Energy Storage System based on Adjustable Bandwidth Filter and Sliding-mode Control. 2020 , 30, 101569	13
1143	Strategies for Engineering High-Performance PGM-Free Catalysts toward Oxygen Reduction and Evolution Reactions. 2020 , 4, 2000016	37
1142	Influence of extensive disorder on the first order phase transformation and its implications on the rate capability and cycling stability of MoS ₂ nanosheets in intercalation regime. 2020 , 453, 227867	2
1141	A Diffusion-Reaction Competition Mechanism to Tailor Lithium Deposition for Lithium-Metal Batteries. 2020 , 59, 7743-7747	91
1140	Spherical sodium metal deposition and growth mechanism study in three-electrode sodium-ion full-cell system. 2020 , 455, 227919	3
1139	Stable Interface between a NaCl-AlCl Melt and a Liquid Ga Negative Electrode for a Long-Life Stationary Al-Ion Energy Storage Battery. 2020 , 12, 15063-15070	5
1138	FeC cluster-promoted single-atom Fe, N doped carbon for oxygen-reduction reaction. 2020 , 22, 7218-7223	9

1137	Switchable Supercapacitors with Transistor-Like Gating Characteristics (G-Cap). 2020 , 30, 1910439	9
1136	Sulfonated Microporous Polymer Membranes with Fast and Selective Ion Transport for Electrochemical Energy Conversion and Storage. 2020 , 132, 9651-9660	12
1135	Dual remediation of waste waters from methylene blue and chromium (VI) using thermally induced ZnO nanofibers. 2020 , 514, 145939	9
1134	Confinement of fluorine anions in nickel-based catalysts for greatly enhancing oxygen evolution activity. 2020 , 56, 4196-4199	21
1133	Bifunctional electrocatalysts for Zn air batteries: recent developments and future perspectives. 2020 , 8, 6144-6182	81
1132	Optimal Multistage Charging of NCA/Graphite Lithium-Ion Batteries Based on Electrothermal-Aging Dynamics. 2020 , 6, 427-438	19
1131	Metastable Rock Salt Oxide-Mediated Synthesis of High-Density Dual-Protected M@NC for Long-Life Rechargeable Zinc-Air Batteries with Record Power Density. 2020 , 142, 7116-7127	78
1130	One-pot sol-gel synthesis of a CoMo catalyst for sustainable biofuel production by solvent- and hydrogen-free deoxygenation: effect of the citric acid ratio. 2020 , 4, 2841-2849	2
1129	Catalyzing zinc-ion intercalation in hydrated vanadates for aqueous zinc-ion batteries. 2020 , 8, 7713-7723	41
1128	Porous Organic Polymer-Derived FeP@N,P-Codoped Porous Carbon as Efficient Electrocatalysts for pH Universal ORR. 2020 , 5, 7225-7234	11
1127	Challenges to the European automotive industry in securing critical raw materials for electric mobility: the case of rare earths. 2020 , 84, 5-17	10
1126	Efficient Hydrogen Oxidation Catalyzed by Strain-Engineered Nickel Nanoparticles. 2020 , 59, 10797-10801	39
1125	A Cation and Anion Dual Doping Strategy for the Elevation of Titanium Redox Potential for High-Power Sodium-Ion Batteries. 2020 , 132, 12174-12181	8
1124	Slurry-Coated Sulfur/Sulfide Cathode with Li Metal Anode for All-Solid-State Lithium-Sulfur Pouch Cells. 2020 , 3, 596-603	26
1123	A Diffusion-Reaction Competition Mechanism to Tailor Lithium Deposition for Lithium-Metal Batteries. 2020 , 132, 7817-7821	25
1122	Unravelling the influence of quasi single-crystalline architecture on high-voltage and thermal stability of LiNi _{0.5} Co _{0.2} Mn _{0.3} O ₂ cathode for lithium-ion batteries. 2020 , 393, 124709	35
1121	Impacts of Driving Conditions on EV Battery Pack Life Cycle. 2020 , 11, 17	6
1120	Sulfonated Microporous Polymer Membranes with Fast and Selective Ion Transport for Electrochemical Energy Conversion and Storage. 2020 , 59, 9564-9573	58

1119	Designed Formation of Double-Shelled Ni-Fe Layered-Double-Hydroxide Nanocages for Efficient Oxygen Evolution Reaction. 2020 , 32, e1906432	167
1118	3D interwoven MXene networks fabricated by the assistance of bacterial celluloses as high-performance cathode material for rechargeable magnesium battery. 2020 , 528, 146985	5
1117	Strategies for Enhancing Lithium-Ion Conductivity of Triple-Layered Ruddlesden-Popper Oxides: Case Study of LiLaTiNbO. 2020 , 59, 9718-9727	3
1116	Potassium-sulfur batteries: Status and perspectives. 2020 , 2, e12038	16
1115	The influence of grid connection of electric vehicles on microgrid and its coordinated control under the background of new energy power generation. 2020 , 002072092093142	0
1114	Tantalum-Based Electrocatalyst for Polysulfide Catalysis and Retention for High-Performance Lithium-Sulfur Batteries. 2020 , 3, 920-934	55
1113	Efficient Bifunctional Catalytic Electrodes with Uniformly Distributed NiN Active Sites and Channels for Long-Lasting Rechargeable Zinc-Air Batteries. 2020 , 16, e2002518	12
1112	Grafting polymer from oxygen-vacancy-rich nanoparticles to enable protective layers for stable lithium metal anode. 2020 , 76, 105046	18
1111	Oxygen-Based Anion Redox for Lithium Batteries. 2020 , 53, 1436-1444	12
1110	Rational design of hollow core-double shells hybrid nanoboxes and nanopipes composed of hierarchical Cu-Ni-Co selenides anchored on nitrogen-doped carbon skeletons as efficient and stable bifunctional electrocatalysts for overall water splitting. 2020 , 402, 126174	37
1109	Challenges of the Electric Vehicle Markets in Emerging Economies. 2020 , 49, 93-101	3
1108	Flexible CBN Monolayers As Promising Anode Materials for High-Performance K-Ion Batteries. 2020 , 12, 30731-30739	25
1107	Boron-, nitrogen-, aluminum-, and phosphorus-doped graphite electrodes for non-lithium ion batteries. 2020 , 20, 988-993	3
1106	Electroanalytical methods and their hyphenated techniques for novel ion battery anode research. 2020 , 13, 2618-2656	13
1105	Optimizing Discharge Capacity of Graphite Nanosheet Electrodes for Lithium-Oxygen Batteries. 2020 , 6, 36	1
1104	Solvation Rule for Solid-Electrolyte Interphase Enabler in Lithium-Metal Batteries. 2020 , 132, 18386-18390	4
1103	Solvation Rule for Solid-Electrolyte Interphase Enabler in Lithium-Metal Batteries. 2020 , 59, 18229-18233	18
1102	A Safe Organic Oxygen Battery Built with Li-Based Liquid Anode and MOFs Separator. 2020 , 10, 1903953	18

1101	Achieving high-energy dual carbon Li-ion capacitors with unique low- and high-temperature performance from spent Li-ion batteries. 2020 , 8, 4950-4959	33
1100	Molecular Design of Single-Atom Catalysts for Oxygen Reduction Reaction. 2020 , 10, 1903815	139
1099	Fast production of zinchexamethylenetetramine complex microflowers as an advanced sulfur reservoir for high-performance lithiumsulfur batteries. 2020 , 8, 5062-5069	7
1098	Engineering defect-enabled 3D porous MoS ₂ /C architectures for high performance lithium-ion batteries. 2020 , 103, 4453-4462	14
1097	Polyaniline/Pure Carbon Assemblies as Efficient Self-standing Metal-free Oxygen Electrodes in Alkaline Media for Zn-Air Batteries. 2020 , 15, 1544-1548	16
1096	High rate capacity anode of Si-C composite nanofiber wrapped with Cu foam for lithium-ion batteries. 2020 , 268, 127572	2
1095	A Long Cycle Life, All-Solid-State Lithium Battery with a CeramicPolymer Composite Electrolyte. 2020 , 3, 2916-2924	41
1094	Prospects of organic electrode materials for practical lithium batteries. 2020 , 4, 127-142	340
1093	Dynamic energy-efficient torque allocation algorithm for in-wheel motor-driven vehicle. 2020 , 234, 1815-1825	5
1092	One-dimensional hollow FePt nanochains: applications in hydrolysis of NaBH ₄ and structural stability under Ga ion irradiation. 2020 , 31, 185704	2
1091	Rational Design of a Laminated Dual-Polymer/PolymerCeramic Composite Electrolyte for High-Voltage All-Solid-State Lithium Batteries. 2020 , 2, 317-324	28
1090	A potassiumtellurium battery. 2020 , 28, 10-16	24
1089	Hierarchical Nanostructured Pd/Co ₃ N-Ni ₃ N as an Efficient Catalyst for Ethanol Electrooxidation in Alkaline Media. 2020 , 7, 1901875	9
1088	An aqueous manganeselead battery for large-scale energy storage. 2020 , 8, 5959-5967	10
1087	Interfacial Design of Dendrite-Free Zinc Anodes for Aqueous Zinc-Ion Batteries. 2020 , 132, 13280-13291	14
1086	Interfacial Design of Dendrite-Free Zinc Anodes for Aqueous Zinc-Ion Batteries. 2020 , 59, 13180-13191	256
1085	Organic-Inorganic-Induced Polymer Intercalation into Layered Composites for Aqueous Zinc-Ion Battery. 2020 , 6, 968-984	124
1084	Lithium and magnesium polymeric electrolytes prepared using poly(glycidyl ether)-based polymers with short grafted chains. 2020 , 11, 2070-2079	3

1083	An Empirical Model for the Design of Batteries with High Energy Density. 2020 , 5, 807-816	52
1082	First-Principles Design of Highly Functional Sulfide Electrolyte of $\text{Li}_{10}\text{SnP}_2\text{S}_{12}\text{Cl}_x$ for All Solid-State Li-Ion Battery Applications. 2020 , 8, 3321-3327	11
1081	Effectively suppressing lithium dendrite growth via an es-LiSPCE single-ion conducting nano fiber membrane. 2020 , 8, 2518-2528	19
1080	Recent advances in the interface design of solid-state electrolytes for solid-state energy storage devices. 2020 , 7, 1246-1278	30
1079	Atomically thin titanium carbide used as high-efficient, low-cost and stable catalyst for oxygen reduction reaction. 2020 , 45, 6994-7004	6
1078	Surface Reorganization on Electrochemically-Induced Zn-Ni-Co Spinel Oxides for Enhanced Oxygen Electrocatalysis. 2020 , 132, 6554-6561	39
1077	Surface Reorganization on Electrochemically-Induced Zn-Ni-Co Spinel Oxides for Enhanced Oxygen Electrocatalysis. 2020 , 59, 6492-6499	133
1076	Recycling of mixed cathode lithium-ion batteries for electric vehicles: Current status and future outlook. 2020 , 2, 6-43	136
1075	Lychee-like TiO@TiN dual-function composite material for lithium-sulfur batteries.. 2020 , 10, 2670-2676	6
1074	Simultaneously Integrating Single Atomic Cobalt Sites and Co S Nanoparticles into Hollow Carbon Nanotubes as Trifunctional Electrocatalysts for Zn-Air Batteries to Drive Water Splitting. 2020 , 16, e1906735	59
1073	Characterization of novel graphene-based microporous layers for Polymer Electrolyte Membrane Fuel Cells operating under low humidity and high temperature. 2020 , 45, 7046-7058	14
1072	Poly(vinylidene fluoride)/SiO ₂ composite membrane separators for high-performance lithium-ion batteries to provide battery capacity with improved separator properties. 2020 , 451, 227759	23
1071	High-Performance Lithium-Rich Layered Oxide Material: Effects of Preparation Methods on Microstructure and Electrochemical Properties. 2020 , 13,	14
1070	Pretreatment of microalgal biomass for efficient biohydrogen production - Recent insights and future perspectives. 2020 , 302, 122871	53
1069	Polysulfide Regulation by the Zwitterionic Barrier toward Durable Lithium-Sulfur Batteries. 2020 , 142, 3583-3592	95
1068	Designing Aqueous Organic Electrolytes for Zinc-Air Batteries: Method, Simulation, and Validation. 2020 , 10, 1903470	25
1067	C ₃ N monolayer with substitutional doping and strain modulation serving as anode material of lithium-ion batteries. 2020 , 510, 145324	18
1066	C(OH) and Its Nanocomposite for High-Performance Lithium Storage. 2020 , 14, 1600-1608	5

1065	Gemischte polyanionische Verbindungen als positive Elektroden für die kostengünstige elektrochemische Energiespeicherung. 2020 , 132, 9342-9349	5
1064	Mixed Polyanionic Compounds as Positive Electrodes for Low-Cost Electrochemical Energy Storage. 2020 , 59, 9255-9262	39
1063	Flexible nonwoven ZrO ₂ ceramic membrane as an electrochemically stable and flame-resistant separator for high-power rechargeable batteries. 2020 , 388, 124259	26
1062	Metal-organic framework-derived mesoporous carbon nanoframes embedded with atomically dispersed Fe active sites for efficient bifunctional oxygen and carbon dioxide electroreduction. 2020 , 267, 118720	78
1061	Highly symmetric gigaporous carbon microsphere as conductive host for sulfur to achieve high areal capacity for lithium-sulfur batteries. 2020 , 451, 227818	5
1060	Gadolinium-Induced Valence Structure Engineering for Enhanced Oxygen Electrocatalysis. 2020 , 10, 1903833	61
1059	General Approach to Single and Hybrid Metal Oxide Fiber Structures for High-Performance Lithium-Ion Batteries. 2020 , 15, 1105-1109	
1058	Freestanding SnS Carbon Composite Nanofiber Material with Excellent Electrochemical Performance as Binder-Free Negative Electrode for Lithium-ion Batteries. 2020 , 5, 1792-1796	5
1057	High energy efficiency and high power density aluminum-air flow battery. 2020 , 44, 7568-7579	8
1056	Multi-objective decision analysis for data-driven based estimation of battery states: A case study of remaining useful life estimation. 2020 , 45, 14156-14173	16
1055	Fabrication strategies for high-rate TiO ₂ nanotube anodes for Li ion energy storage. 2020 , 463, 228205	11
1054	Metal-Ion Coupled Electron Transfer Kinetics in Intercalation-Based Transition Metal Oxides. 2020 , 10, 1903933	26
1053	A novel clustering algorithm for grouping and cascade utilization of retired Li-ion batteries. 2020 , 29, 101303	18
1052	Interfacial integration and roll forming of quasi-solid-state Li ₂ O ₂ battery through solidification and gelation of ionic liquid. 2020 , 463, 228179	10
1051	Run to Failure: Aging of Commercial Battery Cells beyond Their End of Life. 2020 , 13, 1858	4
1050	A general strategy for metal compound encapsulated into network-structured carbon as fast-charging alkali-metal ion battery anode. 2020 , 29, 300-309	12
1049	Niobium-based oxide anodes toward fast and safe energy storage: a review. 2020 , 11, 100082	18
1048	3D microstructure design of lithium-ion battery electrodes assisted by X-ray nano-computed tomography and modelling. 2020 , 11, 2079	96

1047	One-Pot Fabrication of Crumpled N-Doped Graphene Anchored with Cobalt for High-Performance LithiumSulfur Batteries. 2020 , 7, 1733-1738	4
1046	Enhancing Oxygen Reduction Activity of Pt-based Electrocatalysts: From Theoretical Mechanisms to Practical Methods. 2020 , 132, 18490-18504	5
1045	A Cation and Anion Dual Doping Strategy for the Elevation of Titanium Redox Potential for High-Power Sodium-Ion Batteries. 2020 , 59, 12076-12083	53
1044	Enhancing Oxygen Reduction Activity of Pt-based Electrocatalysts: From Theoretical Mechanisms to Practical Methods. 2020 , 59, 18334-18348	73
1043	Toward Green Battery Cells: Perspective on Materials and Technologies. 2020 , 4, 2000039	73
1042	An electrochemical evaluation of nitrogen-doped carbons as anodes for lithium ion batteries. 2020 , 164, 261-271	19
1041	Capacitive property studies of electrochemically synthesized Co ₃ O ₄ and Mn ₃ O ₄ on inexpensive stainless steel current collector for supercapacitor application. 2020 , 46, 14640-14649	13
1040	Co nanoparticles coupling induced high catalytic activity of nitrogen doped carbon towards hydrogen evolution reaction in acidic/alkaline solutions. 2020 , 342, 136076	10
1039	Carbon-doped ZnO nanotube-based highly effective hydrogen gas sensor: A first-principles study. 2020 , 45, 14174-14182	22
1038	Battery plant location considering the balance between knowledge and cost: A comparative study of the EU-28 countries. 2020 , 264, 121428	3
1037	Bringing forward the development of battery cells for automotive applications: Perspective of R&D activities in China, Japan, the EU and the USA. 2020 , 459, 228073	59
1036	Current status and perspectives on recycling of end-of-life battery of electric vehicle in Korea (Republic of). 2020 , 106, 261-270	26
1035	In Operando Acoustic Detection of Lithium Metal Plating in Commercial LiCoO ₂ /Graphite Pouch Cells. 2020 , 1, 100035	33
1034	Reversible Energy Storage in Layered Copper-Based Coordination Polymers: Unveiling the Influence of the Ligand's Functional Group on Their Electrochemical Properties. 2020 , 124, 9215-9224	18
1033	Multi-physics-resolved digital twin of proton exchange membrane fuel cells with a data-driven surrogate model. 2020 , 1, 100004	61
1032	Life cycle assessment of lithium oxygen battery for electric vehicles. 2020 , 264, 121339	23
1031	LiFePO ₄ spray drying scale-up and carbon-cage for improved cyclability. 2020 , 462, 228103	12
1030	Mille-Cr ₂ e-like Metal Phosphide Nanocrystals/Carbon Nanotube Film Composites as High-Capacitance Negative Electrodes in Asymmetric Supercapacitors. 2020 , 3, 4580-4588	10

1029	Oligolayered Ti ₃ C ₂ T _x MXene towards high performance lithium/sodium storage. 2020 , 13, 1659-1667	43
1028	First-Principles Design and Investigation of Siligraphene as a Potential Anode Material for Na-Ion Batteries. 2020 , 124, 11293-11300	7
1027	Efficient Hydrogen Oxidation Catalyzed by Strain-Engineered Nickel Nanoparticles. 2020 , 132, 10889-10893	5
1026	The Current State of Aqueous Zn-Based Rechargeable Batteries. 2020 , 5, 1665-1675	127
1025	Facile synthesis of a covalently connected rGO//OF hybrid material by in situ reaction for enhanced visible-light induced photocatalytic H ₂ evolution. 2020 , 8, 8949-8956	45
1024	Boosting chem-insertion and phys-adsorption in S/N co-doped porous carbon nanospheres for high-performance symmetric Li-ion capacitors. 2020 , 8, 11529-11537	17
1023	Curbing the car: the mitigation potential of a higher carbon price in the New Zealand transport sector. 2020 , 20, 563-576	6
1022	Paths to low-cost hydrogen energy at a scale for transportation applications in the USA and China via liquid-hydrogen distribution networks. 2020 , 4, 26-47	10
1021	Low-PGM and PGM-Free Catalysts for Proton Exchange Membrane Fuel Cells: Stability Challenges and Material Solutions. 2021 , 33, e1908232	83
1020	Ambient-Temperature All-Solid-State Sodium Batteries with a Laminated Composite Electrolyte. 2021 , 31, 2002144	25
1019	A 3D conducting scaffold with in-situ grown lithiophilic Ni ₂ P nanoarrays for high stability lithium metal anodes. 2021 , 54, 301-309	15
1018	Recent advances in carbon nanostructures prepared from carbon dioxide for high-performance supercapacitors. 2021 , 54, 352-367	44
1017	Well-Defined Nanostructures for Electrochemical Energy Conversion and Storage. 2021 , 11, 2001537	47
1016	Single-atom catalysts for metal-sulfur batteries: Current progress and future perspectives. 2021 , 54, 452-466	28
1015	Convolutional neural networkBagged decision tree: a hybrid approach to reduce electric vehicle driver range anxiety by estimating energy consumption in real-time. 2021 , 25, 2399-2416	3
1014	Interface engineering in transition metal-based heterostructures for oxygen electrocatalysis. 2021 , 5, 1033-1059	29
1013	Solid-State LiMetal Batteries: Challenges and Horizons of Oxide and Sulfide Solid Electrolytes and Their Interfaces. 2021 , 11, 2002689	105
1012	Understanding the Gap between Academic Research and Industrial Requirements in Rechargeable Zinc-Ion Batteries. 2021 , 4, 60-71	9

1011	3D N-doped ordered mesoporous carbon supported single-atom Fe-N-C catalysts with superior performance for oxygen reduction reaction and zinc-air battery. 2021 , 280, 119411	127
1010	Combustion synthesis of Fe_2WO_4 -rGO: Anode material for Li-ion battery and photocatalytic dye degradation. 2021 , 47, 10291-10300	4
1009	Fuel cell-battery hybrid systems for mobility and off-grid applications: A review. 2021 , 135, 110119	38
1008	CO_2 mineralization and concurrent utilization for nickel conversion from nickel silicates to nickel sulfides. 2021 , 406, 126761	8
1007	Hollow cobalt-nickel phosphide nanocages for efficient electrochemical overall water splitting. 2021 , 64, 861-869	14
1006	Recent Progress in Porous Fused Aromatic Networks and Their Applications. 2021 , 1, 2000007	6
1005	Nitrogen and cobalt co-doped carbon nanotube films as binder-free trifunctional electrode for flexible zinc-air battery and self-powered overall water splitting. 2021 , 283, 119643	30
1004	Non-metallic charge carriers for aqueous batteries. 2021 , 6, 109-123	85
1003	Hydrogen Storage in Carbon and Oxygen Co-Doped Porous Boron Nitrides. 2021 , 31, 2007381	16
1002	$\text{Eu}_2\text{O}_3/\text{Cu}/\text{NC}$ nanocomposite catalyst with improved oxygen reduction reaction activity for Zn-air batteries. 2021 , 46, 3974-3983	6
1001	Crystalline polymer functionalized non-oxidized graphene flakes for high gas barrier composites. 2021 , 46, 5472-5484	4
1000	A Ship-in-a-Bottle strategy to anchor CoFe nanoparticles inside carbon nanowall-assembled frameworks for high-efficiency bifunctional oxygen electrocatalysis. 2021 , 417, 127895	8
999	Self-aggregating cationic-chains enable alkaline stable ion-conducting channels for anion-exchange membrane fuel cells. 2021 , 9, 327-337	34
998	Formate-Bicarbonate Cycle as a Vehicle for Hydrogen and Energy Storage. 2021 , 14, 1258-1283	9
997	An ultralight-weight polymer electrolyte fuel cell based on woven carbon fiber-resin reinforced bipolar plate. 2021 , 484, 229291	8
996	Techno-economic analysis of cathode material production using flame-assisted spray pyrolysis. 2021 , 218, 119504	9
995	Enhancing hydrogen storage properties of MgH_2 through addition of Ni/CoMoO ₄ nanorods. 2021 , 19, 100613	13
994	Hydrogen Storage for Fuel Cell Electric Vehicles: Expert Elicitation and a Levelized Cost of Driving Model. 2021 , 55, 553-562	3

993	Efficient Co@Co ₃ O ₄ core-shell catalysts for photocatalytic water oxidation and its behaviors in two different photocatalytic systems. 2021 , 57, 83-91	1
992	Material design strategies to improve the performance of rechargeable magnesium-sulfur batteries. 2021 , 8, 830-853	31
991	Pore-Scale Transport and Two-Phase Fluid Structures in Fibrous Porous Layers: Application to Fuel Cells and Beyond. 2020 , 136, 1-26	4
990	Solid Electrolytes for High-Temperature Stable Batteries and Supercapacitors. 2021 , 11, 2002869	15
989	High performance secondary zinc-air/silver hybrid battery. 2021 , 33, 102103	4
988	Scalable Processing Routes for the Production of All-Solid-State Batteries Modeling Interdependencies of Product and Process. 2021 , 9, 2000665	8
987	Optimal selection of sustainable battery supplier for battery swapping station based on Triangular fuzzy entropy -MULTIMOORA method. 2021 , 34, 102013	17
986	Microstructural Engineering of Cathode Materials for Advanced Zinc-Ion Aqueous Batteries. 2020 , 8, 2002722	21
985	A redox-active conjugated microporous polymer cathode for high-performance lithium/potassium-organic batteries. 2021 , 64, 72-81	15
984	Two-dimensional matrices confining metal single atoms with enhanced electrochemical reaction kinetics for energy storage applications. 2021 , 14, 1794-1834	17
983	Precise Molecular-Level Modification of Nafion with Bismuth Oxide Clusters for High-performance Proton-Exchange Membranes. 2021 , 60, 6076-6085	25
982	A review of proton exchange membranes based on protic ionic liquid/polymer blends for polymer electrolyte membrane fuel cells. 2021 , 484, 229197	32
981	From CO ₂ to Formic Acid Fuel Cells. 2021 , 60, 803-815	21
980	Mo ₂ B ₂ MBene-supported single-atom catalysts as bifunctional HER/OER and OER/ORR electrocatalysts. 2021 , 9, 433-441	51
979	Metal-free Al-air microfluidic paper fuel cell to power portable electronic devices. 2021 , 45, 7070-7081	3
978	In Situ Construction of Uniform and Robust Cathode Electrolyte Interphase for Li-Rich Layered Oxides. 2021 , 31, 2009192	25
977	Liquid Exfoliated SnP ₃ Nanosheets for Very High Areal Capacity Lithium-Ion Batteries. 2021 , 11, 2002364	17
976	Phase Behavior during Electrochemical Cycling of Ni-Rich Cathode Materials for Li-Ion Batteries. 2021 , 11, 2003404	41

- 975 Controllable assembling of highly-doped linked carbon bubbles on graphene microfolds. **2021**, 58, 500-507 2
- 974 Hybrid water electrolysis: Replacing oxygen evolution reaction for energy-efficient hydrogen production and beyond. **2021**, 1, 100004 9
- 973 Nitrogen-Doped Porous Graphene-like Carbon Nanosheets as Efficient Oxygen Reduction Reaction Catalysts under Alkaline and Acidic Conditions. **2021**, 60, 210-217 1
- 972 Precise Molecular-Level Modification of Nafion with Bismuth Oxide Clusters for High-performance Proton-Exchange Membranes. **2021**, 133, 6141-6150 5
- 971 Promises and Challenges of Next-Generation "Beyond Li-ion" Batteries for Electric Vehicles and Grid Decarbonization. **2021**, 121, 1623-1669 189
- 970 All-Solid-State Sodium Batteries with a Polyethylene Glycol Diacrylate/Na₃Zr₂Si₂PO₁₂ Composite Electrolyte. **2021**, 2, 2000061 6
- 969 Organic Cathode Materials for Lithium-Ion Batteries: Past, Present, and Future. **2021**, 2, 2000044 18
- 968 Hydrothermal synthesis of Bi₂WO₄: Application to lithium-ion battery and photocatalytic activity. **2021**, 47, 10242-10249 8
- 967 Holey engineered 2D ZnO-nanosheets architecture for supersensitive ppm level H₂ gas detection at room temperature. **2021**, 326, 128839 15
- 966 Organic Liquid Crystals as Single-Ion Li Conductors. **2021**, 14, 655-661 4
- 965 Boron/oxygen-codoped graphitic carbon nitride nanomesh for efficient photocatalytic hydrogen evolution. **2021**, 407, 127114 15
- 964 Surface and Interface Engineering: Molybdenum Carbide-Based Nanomaterials for Electrochemical Energy Conversion. **2021**, 17, e1903380 38
- 963 Cationic polymer-grafted graphene oxide/CNT cathode-coating material for lithium-sulfur batteries.. **2021**, 11, 25305-25313 2
- 962 Single transition metal atom embedded antimonene monolayers as efficient trifunctional electrocatalysts for the HER, OER and ORR: a density functional theory study. **2021**, 13, 12885-12895 9
- 961 MOF composite fibrous separators for high-rate lithium-ion batteries. **2021**, 56, 5868-5877 7
- 960 Advanced liquid electrolytes enable practical applications of high-voltage lithium-metal full batteries. **2021**, 57, 840-858 11
- 959 Comparing pathways for electricity-based production of dimethoxymethane as a sustainable fuel. **2021**, 14, 3686-3699 4
- 958 Metal-Organic Frameworks in Membrane of Fuel Cells. **2021**, 295-295

957	The lithium metal anode in LiS batteries: challenges and recent progress. 2021 , 9, 10012-10038		13
956	Physicochemical properties of microcrystalline cellulose doped imidazole membrane for direct methanol fuel cell. 2021 ,		1
955	Operando X-ray Absorption Spectroscopic Study on the Effect of Ionic Liquid Coverage upon the Oxygen Reduction Reaction Activity of Pd-core Pt-shell Catalysts. 2021 , 89, 31-35		1
954	Multifunctional materials for clean energy conversion. 2021 , 131-152		
953	A process of leaching recovery for cobalt and lithium from spent lithium-ion batteries by citric acid and salicylic acid.. 2021 , 11, 27689-27700		4
952	Comparison of Decentralized ADMM Optimization Algorithms for Power Allocation in Modular Fuel Cell Vehicles. 2021 , 1-12		3
951	A defect-rich ultrathin MoS ₂ /rGO nanosheet electrocatalyst for the oxygen reduction reaction.. 2021 , 11, 24508-24514		2
950	Improvement of long-term cycling performance of high-nickel cathode materials by ZnO coating. 2021 , 10, 210-220		0
949	Post-lithium-ion battery cell production and its compatibility with lithium-ion cell production infrastructure. <i>Nature Energy</i> , 2021 , 6, 123-134	62.3	153
948	An effective strategy for the preparation of a wide-temperature-range proton exchange membrane based on polybenzimidazoles and polyacrylamide hydrogels. 2021 , 9, 3605-3615		11
947	Atomic/molecular layer deposition for energy storage and conversion. 2021 , 50, 3889-3956		39
946	Bridging Structural Inhomogeneity to Functionality: Pair Distribution Function Methods for Functional Materials Development. 2021 , 8, 2003534		14
945	State-Of-The-Art and Future Challenges in High Energy Lithium-Selenium Batteries. 2021 , 33, e2003845		24
944	Three-dimensional mesoporous PtM (M = Co, Cu, Ni) nanowire catalysts with high-performance towards methanol electro-oxidation reaction and oxygen reduction reaction.. 2021 , 11, 14970-14979		2
943	Industrial scale-up: Lab to commercial-scale manufacturing of POSS composites. 2021 , 499-516		1
942	Lithium Iron Phosphate (LiFePO ₄) as High-Performance Cathode Material for Lithium Ion Batteries. 2021 , 35-73		0
941	Imidazole-functionalized polyketone-based polyelectrolytes with efficient ionic channels and superwettability for alkaline polyelectrolyte fuel cells and multiple liquid purification. 2021 , 9, 14827-14840		5
940	Laboratory Operando XAS Study of Sodium Iron Titanite Cathode in the Li-Ion Half-Cell. 2021 , 11,		3

939	Electrocatalytic activity enhancement of N,P-doped carbon nanosheets derived from polymerizable ionic liquids. 2021 , 51, 669-679	2
938	Ion regulation of ionic liquid electrolytes for supercapacitors. 2021 , 14, 2859-2882	13
937	Reaping the catalytic benefits of both surface (NiFe ₂ O ₄) and underneath (Ni ₃ Fe) layers for the oxygen evolution reaction. 2021 , 5, 2704-2714	0
936	A membrane-less electrolyzer with porous walls for high throughput and pure hydrogen production. 2021 , 5, 2419-2432	4
935	De-alloyed PtCu/C catalysts with enhanced electrocatalytic performance for the oxygen reduction reaction. 2021 , 13, 13896-13904	6
934	Advances in the Applications of Graphene-Based Nanocomposites in Clean Energy Materials. 2021 , 11, 47	8
933	Understanding Structure-Property Relationships under Experimental Conditions for the Optimization of Lithium-Ion Capacitor Anodes based on All-Carbon-Composite Materials. 2021 , 9, 2001054	1
932	Recent Advances in Heterostructured Anode Materials with Multiple Anions for Advanced Alkali-Ion Batteries. 2021 , 11, 2003058	21
931	A solid electrolyte interphase to protect the sulfurized polyacrylonitrile (SPAN) composite for LiS batteries: computational approach addressing the electrolyte/SPAN interfacial reactivity. 2021 , 9, 7888-7902	5
930	Electronic structures and defect properties of lithium-rich manganese-based ternary material Li _{1.21} Ni _{0.33} Co _{0.04} Mn _{0.42} O ₂ . 2021 , 0-0	
929	Lithium-Ion Batteries: Latest Advances and Prospects. 2021 , 7, 8	2
928	Ion-selective PEDOT:PSS-decorated separator as a potential polysulfide immobilizer for lithium-sulfur batteries. 2021 , 27, 1087-1099	5
927	Facile and Effective Positive Temperature Coefficient (PTC) Layer for Safer Lithium-Ion Batteries. 2021 , 125, 1761-1766	4
926	Improvement of Electrochemical Stability Using the Eutectic Composition of a Ternary Molten Salt System for Highly Concentrated Electrolytes for Na-Ion Batteries. 2021 , 13, 2538-2546	7
925	A Comprehensive Review on Structural Topologies, Power Levels, Energy Storage Systems, and Standards for Electric Vehicle Charging Stations and Their Impacts on Grid. 2021 , 9, 128069-128094	26
924	Cation-dipole interaction that creates ordered ion channels in an anion exchange membrane for fast OH ⁻ conduction. 2021 , 67, e17133	10
923	On the Beneficial Impact of Li ₂ CO ₃ as Electrolyte Additive in NCM523 Graphite Lithium Ion Cells Under High-Voltage Conditions. 2021 , 11, 2003756	21
922	Nanostructured multifunctional electrocatalysts for efficient energy conversion systems: Recent perspectives. 2021 , 10, 137-157	10

921	Galvanostatic synthesis of MnCo ₂ O ₄ nanoflakes like thin films: effect of deposition parameter on supercapacitive performance. 2021 , 27, 1677-1688	0
920	Inhibition Effect and Mechanism of Na ₂ SnO ₃ -Ethylene Glycol Hybrid Additives on 1060 Aluminum in Alkaline Aluminum-Air Batteries. 2021 , 6, 1804-1813	1
919	An Overview of Parameter and Cost for Battery Electric Vehicles. 2021 , 12, 21	33
918	Co/N-doped carbon nanotube arrays grown on 2D MOFs-derived matrix for boosting the oxygen reduction reaction in alkaline and acidic media. 2021 , 32, 816-821	19
917	Drivers and Barriers to the Adoption of Fuel Cell Passenger Vehicles and Buses in Germany. 2021 , 14, 833	12
916	A new method to explore thermal and venting behavior of lithium-ion battery thermal runaway. 2021 , 486, 229357	11
915	Fast and stable K-ion storage enabled by synergistic interlayer and pore-structure engineering. 2021 , 14, 4502	11
914	Ambient Condition Alcohol Reforming to Hydrogen with Electricity Output. 2021 , 9, 3104-3111	2
913	Subnanoscale Platinum by Repeated UV Irradiation: From One and Few Atoms to Clusters for the Automotive PEMFC. 2021 , 13, 8395-8404	3
912	Stable High-Voltage Aqueous Zinc Battery Based on Carbon-Coated NaVPO ₄ F Cathode. 2021 , 9, 3223-3231	8
911	INCEPTS: Software for high-fidelity electric vehicle en route state of charge estimation, fleet analysis and charger deployment. 2021 , 7, 100106	2
910	Carbon-nanotube-entangled Co,N-codoped carbon nanocomposite for oxygen reduction reaction. 2021 , 32, 205402	2
909	Enhanced self-humidification and proton conductivity in magnetically aligned NiO-Co ₃ O ₄ /chitosan nanocomposite membranes for high-temperature PEMFCs. 2021 , 53, 679-693	3
908	Symmetry Effect on the Enhancement of Lithium-Ion Mobility in Layered Oxides Li ₂ A ₂ B ₂ TiO ₁₀ (A = La, Sr, Ca; B = Ti, Ta). 2021 , 125, 3689-3697	1
907	Research progress of fluorine-containing electrolyte additives for lithium ion batteries. 2021 , 7, 100043	16
906	The 2021 battery technology roadmap. 2021 , 54, 183001	63
905	Single-Atom Rhodium on Defective g-C ₃ N ₄ : A Promising Bifunctional Oxygen Electrocatalyst. 2021 , 9, 3590-3599	37
904	The Electrostatic Attraction and Catalytic Effect Enabled by Ionic-Covalent Organic Nanosheets on MXene for Separator Modification of Lithium-Sulfur Batteries. 2021 , 33, e2007803	48

903	Inline Monitoring of Battery Electrode Lamination Processes Based on Acoustic Measurements. 2021 , 7, 19	4
902	A Novel Open-Source Simulator Of Electric Vehicles in a Demand-Side Management Scenario. 2021 , 14, 1558	1
901	Machine learning for advanced energy materials. 2021 , 3, 100049	27
900	Enhancing thermal safety in lithium-ion battery packs through parallel cell current dumping mitigation. 2021 , 286, 116495	3
899	A Review of Compact Carbon Design for Supercapacitors with High Volumetric Performance. 2021 , 17, e2007548	13
898	Engineering Mesopores and Unsaturated Coordination in Metal-Organic Frameworks for Enhanced Oxygen Reduction and Oxygen Evolution Activity and Li-Air Battery Capacity. 2021 , 9, 4509-4519	10
897	N, O co-doped urchin-like carbon microspheres as high-performance anode materials for lithium ion batteries. 2021 , 361, 115562	5
896	Engineering Crystallinity and Oxygen Vacancies of Co(II) Oxide Nanosheets for High Performance and Robust Rechargeable Zn-Air Batteries. 2021 , 31, 2101239	52
895	Filling the Charge-Discharge Voltage Gap in Flexible Hybrid Zinc-Based Batteries by Utilizing a Pseudocapacitive Material. 2021 , 27, 5796-5802	3
894	Air perturbation-induced low-frequency inductive electrochemical impedance arc in proton exchange membrane fuel cells. 2021 , 488, 229245	4
893	Interfacing spinel NiCo ₂ O ₄ and NiCo alloy derived N-doped carbon nanotubes for enhanced oxygen electrocatalysis. 2021 , 408, 127814	42
892	Modulating Metal-Organic Frameworks as Advanced Oxygen Electrocatalysts. 2021 , 11, 2003291	34
891	Li Selectivity of Carboxylate Graphene Nanopores Inspired by Electric Field and Nanoconfinement. 2021 , 17, e2006704	5
890	Hydrothermal-Induced Formation of Well-Defined Hollow Carbons with Curvature-Activated N-C Sites for Zn-Air Batteries. 2021 , 27, 6247-6253	0
889	Sustainable Battery Materials for Next-Generation Electrical Energy Storage. 2021 , 2, 2000102	15
888	Advances of polymer binders for silicon-based anodes in high energy density lithium-ion batteries. 2021 , 3, 460-501	55
887	String stable control of electric heavy vehicle platoon with varying battery pack locations. 107754632110026	3
886	A combined robust approach based on auto-regressive long short-term memory network and moving horizon estimation for state-of-charge estimation of lithium-ion batteries. 2021 , 45, 12838-12853	4

885	A Novel Fe and Cu Bimetallic Mixed Porous Carbon Material for Oxygen Reduction. 2021 , 12, 362-371	1
884	Electrolyte Interphase Built from Anionic Covalent Organic Frameworks for Lithium Dendrite Suppression. 2021 , 31, 2009718	16
883	Advances of 2D MoS ₂ for High-Energy Lithium Metal Batteries. 2021 , 9,	5
882	Mapping the knowledge domains of new energy vehicle safety: Informetrics analysis-based studies. 2021 , 35, 102275	3
881	In Situ-Grown Nitrogen-Doped Carbon-Nanotube-Embedded Two Phases of Bimetal CoFe Alloy and CoFe ₂ O ₄ Spinel Oxide as Highly Efficient Bifunctional Catalyst for Oxygen Reduction and Evolution Reactions in Rechargeable Zinc-Air Batteries. 2021 , 9, 2001117	2
880	Influence of electrolyte additive of trimethylsilylisocyanate on properties of electrode with nanosilicon for lithium-ion batteries. 2021 , 12, 67-78	1
879	Reaction kinetics in rechargeable zinc-ion batteries. 2021 , 492, 229655	11
878	A Pitaya-Like Co-800@KJ Nanocomposite as Separator Coating for High-Performance Lithium-Sulfur Battery. 2021 , 9, 2001017	2
877	Transient Loss and Recovery of Platinum Fuel Cell Cathode Catalyst at High Voltage Efficiency Regimes. 2021 , 168, 054503	
876	Understanding and mitigating mechanical degradation in lithium-sulfur batteries: additive manufacturing of Li ₂ S composites and nanomechanical particle compressions. 1	2
875	Architecting Amorphous Vanadium Oxide/MXene Nanohybrid via Tunable Anodic Oxidation for High-Performance Sodium-Ion Batteries. 2021 , 11, 2100757	41
874	Facile metal complex-derived Ni/NiO/Carbon composite as anode material for Lithium-ion battery. 2021 , 887, 115168	2
873	Ultralow platinum loading proton exchange membrane fuel cells: Performance losses and solutions. 2021 , 490, 229515	14
872	Review on Multivalent Rechargeable Metal-Organic Batteries. 2021 , 35, 7624-7636	8
871	"Two Ships in a Bottle" Design for Zn-Ag-O Catalyst Enabling Selective and Long-Lasting CO Electroreduction. 2021 , 143, 6855-6864	36
870	Graphene/PVDF Composites for Ni-rich Oxide Cathodes Toward High-Energy Density Li-ion Batteries. 2021 , 14,	3
869	High Performance Composite Polymer Electrolytes for Lithium-Ion Batteries. 2021 , 31, 2101380	34
868	Fe, N-doped graphene-wrapped carbon black nanoparticles as highly efficient catalyst towards oxygen reduction reaction. 2021 , 545, 148981	6

867	In-operando surface-sensitive probing of electrochemical reactions on nanoparticle electrocatalysts: Spectroscopic characterization of reaction intermediates and elementary steps of oxygen reduction reaction on Pt. 2021 , 396, 32-39	7
866	An energy conservation and environmental improvement solution-ultra-capacitor/battery hybrid power source for vehicular applications. 2021 , 44, 100998	4
865	Zinc-Air Batteries Catalyzed Using Co ₃ O ₄ Nanorod-Supported N-Doped Entangled Graphene for Oxygen Reduction Reaction. 2021 , 4, 4570-4580	5
864	A Review of Range Extenders in Battery Electric Vehicles: Current Progress and Future Perspectives. 2021 , 12, 54	49
863	Insight into the capacity decay mechanism of cycled LiNiCoMnO cathodes via x-ray diffraction. 2021 , 32,	5
862	Challenges and Recent Progress on Silicon-Based Anode Materials for Next-Generation Lithium-Ion Batteries. 2021 , 2, 2100009	36
861	Pseudocapacitive Anode Materials toward High-Power Sodium-Ion Capacitors. 2021 , 4, 1567	12
860	Ultrasonic-assisted hydrothermal synthesis of cobalt oxide/nitrogen-doped graphene oxide hybrid as oxygen reduction reaction catalyst for Al-air battery. 2021 , 72, 105457	2
859	Graphene collage on Ni-rich layered oxide cathodes for advanced lithium-ion batteries. 2021 , 12, 2145	24
858	Hierarchical two-atom-layered WSe ₂ /C ultrathin crumpled nanosheets assemblies: Engineering the interlayer spacing boosts potassium-ion storage. 2021 , 36, 309-317	29
857	Designing Nanostructured Metal Chalcogenides as Cathode Materials for Rechargeable Magnesium Batteries. 2021 , 17, e2007683	22
856	Synthesis of Ag-Ni-Fe-P Multielemental Nanoparticles as Bifunctional Oxygen Reduction/Evolution Reaction Electrocatalysts. 2021 , 15, 7131-7138	9
855	Unveiling decaying mechanism through quantitative structure-activity relationship in electrolytes for lithium-ion batteries. 2021 , 83, 105843	12
854	MXenes as Superexcellent Support for Confining Single Atom: Properties, Synthesis, and Electrocatalytic Applications. 2021 , 17, e2007113	13
853	Multivalent Amide-Hydrogen-Bond Supramolecular Binder Enhances the Cyclic Stability of Silicon-Based Anodes for Lithium-Ion Batteries. 2021 , 13, 22567-22576	4
852	Electrospun Modified Polyketone-Based Anion Exchange Membranes with High Ionic Conductivity and Robust Mechanical Properties. 2021 , 4, 5187-5200	3
851	Assembly of Mn ₃ O ₄ nanoparticles at low temperature on graphene with enhanced electrochemical property for zinc-ion battery. 2021 , 864, 158316	15
850	Degradation Behavior, Biocompatibility, Electrochemical Performance, and Circularity Potential of Transient Batteries. 2021 , 8, 2004814	15

849	Bridging the gap between highly active oxygen reduction reaction catalysts and effective catalyst layers for proton exchange membrane fuel cells. <i>Nature Energy</i> , 2021 , 6, 475-486	62.3	58
848	A Security Authentication Method between the Charging Pile and Battery Management System. 2021 ,		
847	Determining the Diffusion Coefficient of Lithium Insertion Cathodes from GITT measurements: Theoretical Analysis for low Temperatures*. 2021 , 22, 885-893		7
846	In situ formation of ionically conductive nanointerphase on Si particles for stable battery anode. 2021 , 64, 1417-1425		11
845	High-performance Fe _{Ni} C electrocatalysts with a chain mail protective shield. 2021 , 3, 420-420		0
844	Metal-Organic Frameworks and Metal-Organic Gels for Oxygen Electrocatalysis: Structural and Compositional Considerations. 2021 , 33, e2008023		21
843	Maximizing Hosting Capacity of Uncertain Photovoltaics by Coordinated Management of OLTC, VAR Sources and Stochastic EVs. 2021 , 127, 106627		16
842	Hybrid twin-metal aluminum-magnesium electrolytes for rechargeable batteries. 2021 , 493, 229681		6
841	Hierarchical N,P co-doped graphene aerogels framework assembling vertically grown CoMn-LDH nanosheets as efficient bifunctional electrocatalyst for rechargeable Zinc-air battery. 2021 , 590, 476-486		9
840	Heterogeneous Catalysis on Liquid Organic Hydrogen Carriers. 2021 , 64, 481-508		4
839	Single Mn Atom Anchored on Nitrogen-Doped Graphene as a Highly Efficient Electrocatalyst for Oxygen Reduction Reaction. 2021 , 27, 9686-9693		2
838	Bioinspired Distributed Energy in Robotics and Enabling Technologies. 2100036		8
837	Fundamentals, On-Going Advances and Challenges of Electrochemical Carbon Dioxide Reduction. 1		3
836	Pseudocapacitance multiporous vanadyl phosphate/graphene thin film electrode for high performance electrochemical capacitors. 2021 , 590, 341-351		6
835	A novel structural design of air cathodes expanding three-phase reaction interfaces for zinc-air batteries. 2021 , 290, 116777		10
834	Benefits of Fast Battery Formation in a Model System. 2021 , 168, 050543		2
833	Advanced optimal planning for microgrid technologies including hydrogen and mobility at a real microgrid testbed. 2021 , 46, 19285-19302		7
832	Electrochemical Catalysts for Green Hydrogen Energy. 2021 , 2, 2100019		2

831	Revealing the Various Electrochemical Behaviors of Sn4P3 Binary Alloy Anodes in Alkali Metal Ion Batteries. 2021 , 31, 2102047	11
830	Structural Transitions During Formation and Rehydration of Proton Conducting Polymeric Membranes. 2021 , 42, e2000717	
829	Coal-derived synthetic graphite with high specific capacity and excellent cyclic stability as anode material for lithium-ion batteries. 2021 , 292, 120250	6
828	Porous Polymer Gel Electrolytes Influence Lithium Transference Number and Cycling in Lithium-Ion Batteries. 2021 , 2, 154-173	2
827	Deployment of fuel cell vehicles in China: Greenhouse gas emission reductions from converting the heavy-duty truck fleet from diesel and natural gas to hydrogen. 2021 , 46, 17982-17997	16
826	Lithium Bis(trimethylsilyl) Phosphate as a Novel Bifunctional Additive for High-Voltage LiNiMnO/Graphite Lithium-Ion Batteries. 2021 , 13, 22351-22360	6
825	Novel binder-free carbon anode for high capacity Li-ion batteries. 2021 , 83, 105816	4
824	Highly Surface-Distorted Pt Superstructures for Multifunctional Electrocatalysis. 2021 , 21, 5075-5082	6
823	Fully Decentralized Energy Management Strategy Based on Model Predictive Control in a Modular Fuel Cell Vehicle. 2021 ,	
822	Effect of Washing on the Electrochemical Performance of a Three-Dimensional Current Collector for Energy Storage Applications. 2021 , 11,	6
821	The effect of plasma treated carbon felt on the performance of aqueous quinone-based redox flow batteries. 2021 , 45, 17878-17887	1
820	Advances in Lithium-Sulfur Batteries: From Academic Research to Commercial Viability. 2021 , 33, e2003666	77
819	Interphase Engineering by Electrolyte Additives for Lithium-Rich Layered Oxides: Advances and Perspectives. 2021 , 6, 2552-2564	14
818	Surface nitridation of LiTiO by thermal decomposition of urea to improve quick charging capability of lithium ion batteries. 2021 , 11, 13095	1
817	New Battery with Borides as Both Anode and Cathode Materials. 2021 , 35, 10315-10321	1
816	Aluminum-air batteries: A review of alloys, electrolytes and design. 2021 , 498, 229762	18
815	Rationally Designed PEGDA-LLZTO Composite Electrolyte for Solid-State Lithium Batteries. 2021 , 13, 30703-30711	5
814	Geographic information big data-driven two-stage optimization model for location decision of hydrogen refueling stations: An empirical study in China. 2021 , 225, 120330	8

813	An Exploratory Analysis of Possible Effects of Budget On Public Policies to Support Innovation in Brazil: The Case of Inovar-Auto Program. 2021 , 18, 2150015	0
812	Kullanış Perspektifli Çok Kriterli Karar Verme ile Elektrikli Araçlarda Batarya Seçimi. 2021 , 13, 733-749	1
811	Re-Looking into the Active Moieties of Metal X-ides (X = Phosph-, Sulf-, Nitr-, and Carb-) Toward Oxygen Evolution Reaction. 2021 , 31, 2102918	24
810	Development of a three-phase interleaved converter based on SEPIC DCDC converter operating in discontinuous conduction mode for ultra-fast electric vehicle charging stations. 2021 , 14, 1889-1903	0
809	Unveiling micro internal short circuit mechanism in a 60 Ah high-energy-density Li-ion pouch cell. 2021 , 84, 105908	6
808	Iron polyphthalocyanine-derived ternary-balanced Fe ₃ O ₄ /Fe ₃ N/Fe-N-C@PC as a high-performance electrocatalyst for the oxygen reduction reaction. 1	8
807	Cellulose as a Precursor of High-Performance Energy Storage Materials in Li ₂ S Batteries and Supercapacitors. 2021 , 9, 2100268	2
806	Uncovering travel and charging patterns of private electric vehicles with trajectory data: evidence and policy implications. 1	1
805	Engineering Platinum-Cobalt Nano-alloys in Porous Nitrogen-Doped Carbon Nanotubes for Highly Efficient Electrocatalytic Hydrogen Evolution. 2021 , 133, 19216-19221	1
804	Aqueous/solid state Zn-air batteries based on N doped graphdiyne as efficient metal-free bifunctional catalyst. 2021 , 85, 106024	13
803	Extending the Cyclability of Alkaline Zinc-Air Batteries: Synergistic Roles of Li and K Ions in Electrodes. 2021 , 13, 33112-33122	2
802	Defected molybdenum disulfide catalyst engineered by nitrogen doping for advanced lithium-oxygen battery. 2021 , 383, 138369	3
801	Surface enrichment and diffusion enabling gradient-doping and coating of Ni-rich cathode toward Li-ion batteries. 2021 , 12, 4564	38
800	Smart Transportation. 2021 , 169-193	0
799	Searching Ternary Oxides and Chalcogenides as Positive Electrodes for Calcium Batteries. 2021 , 33, 5809-5821	2
798	Molecular Control of Carbon-Based Oxygen Reduction Electrocatalysts through Metal Macrocyclic Complexes Functionalization. 2021 , 11, 2100866	6
797	Superior electrochemical performance of La-Mg-Ni-based alloys with novel A ₂ B ₇ -A ₇ B ₂₃ biphasic superlattice structure. 2021 , 80, 128-138	5
796	Pulsed vs. galvanostatic accelerated stress test protocols: Comparing predictions for anode reversal tolerance in proton exchange membrane fuel cells. 2021 , 500, 229986	1

795	Structural Studies of Electrochemical Interfaces with Liquid Electrolytes Using Neutron Reflectometry: Experimental Aspects. 2021 , 15, 787-792	
794	Designing the next generation of proton-exchange membrane fuel cells. 2021 , 595, 361-369	152
793	Tuning parallel manganese dioxide to hollow parallel hydroxyl oxidize iron replicas for high-performance asymmetric supercapacitors. 2021 , 594, 812-823	53
792	Hybrid Electric Vehicles: A Review of Existing Configurations and Thermodynamic Cycles. 2021 , 1, 134-150	3
791	Continuous Processing of Cathode Slurry by Extrusion for Lithium-Ion Batteries. 2021 , 9, 2100250	1
790	Engineering Platinum-Cobalt Nano-alloys in Porous Nitrogen-Doped Carbon Nanotubes for Highly Efficient Electrocatalytic Hydrogen Evolution. 2021 , 60, 19068-19073	33
789	The role of nickel recycling from nickel-bearing batteries on alleviating demand-supply gap in China's industry of new energy vehicles. 2021 , 170, 105612	6
788	Chemical dealloying pore structure control of porous copper current collector for dendrite-free lithium anode. 1	2
787	Recent Advances in Electrode Design for Rechargeable Zinc-Air Batteries. 2021 , 1, 2100044	17
786	Superior sodium storage of NaV(PO) ₄ N nanofibers as a high voltage cathode for flexible sodium-ion battery devices. 2021 , 32,	2
785	In Situ Synthesis of a Li _{6.4} La ₃ Zr _{1.4} Ta _{0.6} O ₁₂ /Poly(vinylene carbonate) Hybrid Solid-State Electrolyte with Enhanced Ionic Conductivity and Stability. 2021 , 4, 9368-9375	2
784	Yttrium Vanadium Oxide-Poly(3,4-ethylenedioxythiophene) Composite Cathode Material for Aqueous Zinc-Ion Batteries.. 2021 , 5, e2100544	3
783	Molecular Layer Deposition of Alucone Thin Film on LiCoO ₂ to Enable High Voltage Operation. 2021 , 4, 1739	3
782	The control of lithium-ion batteries and supercapacitors in hybrid energy storage systems for electric vehicles: A review.	8
781	Emerging technologies for conversion of sustainable algal biomass into value-added products: A state-of-the-art review. 2021 , 784, 147024	18
780	Ultra-high gas barrier composites with aligned graphene flakes and polyethylene molecules for high-pressure gas storage tanks. 2021 , 40, 102692	3
779	Engineering Single Atom Catalysts to Tune Properties for Electrochemical Reduction and Evolution Reactions. 2021 , 11, 2101670	9
778	Pyrometallurgical Technology in the Recycling of a Spent Lithium Ion Battery: Evolution and the Challenge.	12

777	Morphology, chemistry, performance trident: Insights from hollow, mesoporous carbon nanofibers for dendrite-free sodium metal batteries. 2021 , 86, 106132	13
776	Corncob Derived Porous Carbon Anode for Long-Term Cycling in Low-Cost Lithium Storage. 2022 , 19,	0
775	Freestanding MXene/MnO ₂ Films for Li ₂ O ₂ Cathodes with Low Overpotential and Long-Term Cycling. 2021 , 4, 9961-9968	4
774	Operando spatial mapping of lithium concentration using thermal-wave sensing. 2021 , 5, 2195-2210	5
773	Synthesis of Ultrasmall NiCo ₂ O ₄ Nanoparticle-Decorated N-Doped Graphene Nanosheets as an Effective Catalyst for Zn/Air Batteries. 2021 , 35, 14188-14196	7
772	Active Cell Equalization Topologies Analysis for Battery Packs: A Systematic Review. 2021 , 36, 9119-9135	18
771	Improved Electrochemical Performance of Zinc Anodes by EDTA in Near-Neutral Zinc/Air Batteries.	1
770	Kinetics studies of thin film amorphous titanium niobium oxides for lithium ion battery anodes. 2021 , 388, 138544	0
769	Energy-Optimal Braking Control Using a Double-Layer Scheme for Trajectory Planning and Tracking of Connected Electric Vehicles. 2021 , 34,	2
768	Oxygen-Defect Enhanced Anion Adsorption Energy Toward Super-Rate and Durable Cathode for Ni-Zn Batteries. 2021 , 13, 167	13
767	Advanced Electrolyte Design for High-Energy-Density Li-Metal Batteries under Practical Conditions. 2021 , 133, 25828	8
766	Rapid and simple assembly of a thin microfluidic fuel cell stack by gas-assisted thermal bonding. 2021 , 295, 117011	3
765	New Equivalent Electrical Model of a Fuel Cell and Comparative Study of Several Existing Models with Experimental Data from the PEMFC Nexa 1200 W. 2021 , 12,	1
764	Advanced Electrolyte Design for High-Energy-Density Li-Metal Batteries under Practical Conditions. 2021 , 60, 25624-25638	17
763	Pencil lead powder as a cost-effective and high-performance graphite-silica composite anode for high performance lithium-ion batteries. 2021 , 872, 159719	2
762	A Novel Method of Open Circuit Voltage Reconstruction for LiFePO ₄ Battery based on Incremental Capacity Analysis. 2021 ,	
761	Recent Progress in the Development of Advanced Functionalized Electrodes for Oxygen Evolution Reaction: An Overview. 2021 , 14,	0
760	Compact energy storage enabled by graphenes: Challenges, strategies and progress. 2021 ,	12

759	Towards Building eco-friendly and emission less Electric Scooter. 2021 , 1997, 012043	1
758	Urban Air Mobility: Projections for Air Taxis.	0
757	Hierarchical assembly strategy to tailored nanostructures of doped-carbon/Co-based catalysts for high-performance trifunctional electrocatalysis. 2021 , 418, 129365	7
756	Mesoporous Yolk-Shell Structured Organosulfur Nanotubes with Abundant Internal Joints for High-Performance Lithium-Sulfur Batteries by Kinetics Acceleration. 2021 , 17, e2101857	5
755	The role of structural defects in commercial lithium-ion batteries. 2021 , 2, 100554	6
754	The effect of membrane electrode assembly methods on the performance in fuel cells. 2021 , 389, 138676	7
753	Customer demand-driven low-carbon vehicles combined strategy and route optimisation integrated decision. 2021 , 11, 18483	0
752	First-principle-data-integrated machine-learning approach for high-throughput searching of ternary electrocatalyst toward oxygen reduction reaction. 2021 , 1, 855-869	6
751	Gradually anchoring sulfur into in-situ doped carbon substrate as cathode for LiS batteries with excellent wide-temperature performance. 2021 ,	1
750	Construction of Stable Wide-Temperature-Range Proton Exchange Membranes by Incorporating a Carbonized Metal-Organic Frame into Polybenzimidazoles and Polyacrylamide Hydrogels. 2021 , 17, e2103214	5
749	The Hazards Analysis of Nickel-Rich Lithium-Ion Battery Thermal Runaway under Different States of Charge. 2021 , 10, 2376	0
748	Manganese dioxide coupled with hollow carbon nanofiber toward high-performance electrochemical supercapacitive electrode materials. 2021 , 6, 472-482	1
747	Bioinspired synthesis and green ecological applications of reduced graphene oxide based ternary nanocomposites. 2021 , 29, e00315	1
746	Regulating Intercalation of Layered Compounds for Electrochemical Energy Storage and Electrocatalysis. 2104543	4
745	Enhancing capacitor lifetime by alternate constant polarization. 2021 , 506, 230131	1
744	Reversible Magnesium Metal Anode Enabled by Cooperative Solvation/Surface Engineering in Carbonate Electrolytes. 2021 , 13, 195	7
743	The triad [Electrode Solid electrolyte interphase Electrolyte] as a ground for the use of conversion type reactions in lithium-ion batteries. 2021 , 12, 226-279	
742	Recent Advances in Alternative Sources of Energy. 2021 , 55-71	1

741	Platinum Group Metals: A Review of Resources, Production and Usage with a Focus on Catalysts. 2021 , 10, 93	12
740	A high-performance lithiated silicon-sulfur battery with pomegranate-structured electrodes. 2021 , 506, 230174	4
739	Electrolyte solutions design for lithium-sulfur batteries. 2021 , 5, 2323-2364	38
738	Devil is in the Defects: Electronic Conductivity in Solid Electrolytes. 2021 , 33, 7484-7498	8
737	Criterion for Identifying Anodes for Practically Accessible High-Energy-Density Lithium-Ion Batteries. 3719-3724	13
736	Understanding attitudes of hydrogen fuel-cell vehicle adopters in Japan. 2021 , 46, 30698-30717	3
735	Heterostructured CoS/CuCoS@N-doped carbon hollow sphere for potassium-ion batteries. 2022 , 608, 275-283	15
734	Boosting the Electrocatalytic Activity of FeCo Dual-Atom Catalysts for Oxygen Reduction Reaction by Ligand-Modification Engineering. 2021 , 13, 4645	2
733	Lessons learned from FeSb ₂ O ₄ on stereoactive lone pairs as a design principle for anion insertion. 2021 , 100592	1
732	MXene-Derived Quantum Dots for Energy Conversion and Storage Applications. 2021 , 35, 14304-14324	5
731	High-performance anode of lithium ion batteries with plasma-prepared silicon nanoparticles and a three-component binder. 2021 , 390, 138809	3
730	Energy Storage Systems. 2021 , 59-123	
729	Application of layered nanoclay in electrochemical energy: Current status and future. 2021 , 3, 100062	5
728	A Coral-Like FeP@NC Anode with Increasing Cycle Capacity for Sodium-Ion and Lithium-Ion Batteries Induced by Particle Refinement. 2021 , 60, 25013-25019	16
727	A green hydrogen economy for a renewable energy society. 2021 , 33, 100701	33
726	Proton Exchange Membrane Fuel Cells (PEMFCs): Advances and Challenges. 2021 , 13,	15
725	CoNi Nanoparticles Supported on N-Doped Bifunctional Hollow Carbon Composites as High-Performance ORR/OER Catalysts for Rechargeable Zn-Air Batteries. 2021 , 13, 45394-45405	9
724	A Coral-Like FeP@NC Anode with Increasing Cycle Capacity for Sodium-Ion and Lithium-Ion Batteries Induced by Particle Refinement.	1

723	Increased Moisture Uptake of NCM622 Cathodes after Calendering due to Particle Breakage. 2021 , 168, 090539	5
722	Three-Dimensional Carbon-Coated LiFePO ₄ Cathode with Improved Li-Ion Battery Performance. 2021 , 11, 1137	1
721	Multiphysics modeling of lithium-ion, lead-acid, and vanadium redox flow batteries. 2021 , 42, 102982	4
720	A review of thermal physics and management inside lithium-ion batteries for high energy density and fast charging. 2021 , 41, 264-288	15
719	Why we need battery swapping technology. 2021 , 157, 112481	4
718	Cationic and transition metal co-substitution strategy of O ₃ -type NaCrO ₂ cathode for high-energy sodium-ion batteries. 2021 , 41, 183-195	11
717	Nitrogen, sulfur co-doped hierarchical carbon encapsulated in graphene with "sphere-in-layer" interconnection for high-performance supercapacitor. 2021 , 599, 443-452	23
716	Hierarchical cobalt-nitrogen-doped carbon composite as efficiently bifunctional oxygen electrocatalyst for rechargeable Zn-air batteries. 2021 , 878, 160349	5
715	Evaluating long-term emission impacts of large-scale electric vehicle deployment in the US using a human-Earth systems model. 2021 , 300, 1-117364	2
714	Two-dimensional IrN monolayer: An efficient bifunctional electrocatalyst for oxygen reduction and oxygen evolution reactions. 2021 , 600, 711-718	5
713	What factors affect the public acceptance of new energy vehicles in underdeveloped regions? A case study of Gansu Province, China. 2021 , 318, 128432	2
712	Homogeneous triple-phase interfaces enabling one-pot route to metal compound/carbon composites. 2021 , 599, 271-279	1
711	Remaining useful life and state of health prediction for lithium batteries based on empirical mode decomposition and a long and short memory neural network. 2021 , 232, 121022	18
710	Energy storage onboard zero-emission two-wheelers: Challenges and technical solutions. 2021 , 47, 101435	7
709	Development and application of fuel cells in the automobile industry. 2021 , 42, 103124	16
708	Multi-disciplinary design optimization of life cycle eco-efficiency for heavy-duty vehicles using a genetic algorithm. 2021 , 318, 128505	1
707	Fluorination-assisted preparation of self-supporting single-atom Fe-N-doped single-wall carbon nanotube film as bifunctional oxygen electrode for rechargeable Zn-Air batteries. 2021 , 294, 120239	21
706	Nitrogen-carbon materials base on pyrolytic graphene hydrogel for oxygen reduction. 2021 , 602, 274-281	5

705	Engineering the architecture and oxygen deficiency of T-Nb ₂ O ₅ -carbon-graphene composite for high-rate lithium-ion batteries. 2021 , 89, 106398	10
704	Integration of energy flow modelling in life cycle assessment of electric vehicle battery repurposing: Evaluation of multi-use cases and comparison of circular business models. 2021 , 174, 105773	9
703	Superior long-term cycling of high-voltage lithium-ion batteries enabled by single-solvent electrolyte. 2021 , 89, 106299	8
702	Combined density functional theory/kinetic Monte Carlo investigation of surface morphology during cycling of Li-Cu electrodes. 2021 , 397, 139272	1
701	Electron structure and reaction pathway regulation on porous cobalt-doped CeO ₂ /graphene aerogel: A free-standing cathode for flexible and advanced Li-CO ₂ batteries. 2021 , 42, 484-492	8
700	Insight into the high efficiency of Cu/CeO ₂ (1 1 0) catalysts for preferential oxidation of CO from hydrogen rich fuel. 2021 , 566, 150707	1
699	Iminodiacetonitrile induce-synthesis of two-dimensional PdNi/Ni@carbon nanosheets with uniform dispersion and strong interface bonding as an effective bifunctional electrocatalyst in air-cathode. 2021 , 42, 118-128	27
698	How do new use environments influence a technology's knowledge trajectory? A patent citation network analysis of lithium-ion battery technology. 2021 , 50, 104318	1
697	Rare earth-Mg-Ni-based alloys with superlattice structure for electrochemical hydrogen storage. 2021 , 887, 161381	5
696	Structural transformations of metal alloys under electrocatalytic conditions. 2021 , 30, 100796	1
695	Engineering ionomer homogeneously distributed onto the fuel cell electrode with superbly retrieved activity towards oxygen reduction reaction. 2021 , 298, 120609	2
694	The impact of climate policy implementation on lithium, cobalt and nickel demand: The case of the Dutch automotive sector up to 2040. 2021 , 74, 102351	5
693	Analyzing challenges for sustainable supply chain of electric vehicle batteries using a hybrid approach of Delphi and Best-Worst Method. 2021 , 175, 105879	8
692	Ultras-small Pt ₂ Sr alloy nanoparticles as efficient bifunctional electrocatalysts for oxygen reduction and hydrogen evolution in acidic media. 2022 , 64, 315-322	3
691	Advanced biofuels for transportation in West Africa: Common referential state-based strategies. 2022 , 279-310	
690	Nanostructured hexaazatrinaphthalene based polymers for advanced energy conversion and storage. 2022 , 427, 130995	4
689	Investigations on enhanced ionic conduction in ionic liquid dispersed sol-gel derived LiTi ₂ (PO ₄) ₃ . 2022 , 145, 111555	1
688	S, N co-doped carbon nanotubes coupled with CoFe nanoparticles as an efficient bifunctional ORR/OER electrocatalyst for rechargeable Zn-air batteries. 2022 , 429, 132174	11

687	Advanced materials for next-generation fuel cells. 2021 , 213-266	
686	NiMnOx/TiN/CC electrode with a branchleaf structure: a novel approach to improve the performance of supercapacitors with high mass loading of amorphous metal oxides.	3
685	Critical Raw Materials in Polymer Electrolyte Fuel Cells. 2021 , 35-56	0
684	A sandwich-like Ga ₂ FeS ₄ -supported single metal atom as a promising bifunctional electrocatalyst for overall water splitting. 2021 , 9, 18594-18603	1
683	Fabrication and Electrolyte Characterizations of Nanofiber Framework-Based Polymer Composite Membranes with Continuous Proton Conductive Pathways. 2021 , 11,	6
682	Recent Progress of Porous Materials in Lithium-Metal Batteries. 2021 , 2, 2000118	31
681	Potassium-ion batteries: outlook on present and future technologies. 2021 , 14, 2186-2243	130
680	Battery cost forecasting: a review of methods and results with an outlook to 2050. 2021 , 14, 4712-4739	28
679	A Review on Vehicle-Integrated Photovoltaic Panels. 2021 , 349-370	0
678	Challenge in metal-air batteries: From the design to the performance of metal oxide-based electrocatalysts. 2021 , 187-212	
677	Solar Photovoltaics: Living a Technology From Research Curiosity to Reality. 2021 ,	
676	A facile one-pot synthesis of Co ₂ P nanoparticle-encapsulated doped carbon nanotubes as bifunctional electrocatalysts for high-performance rechargeable Zn air batteries. 2021 , 23, 1013-1018	5
675	A cation selective separator induced cathode protective layer and regulated zinc deposition for zinc ion batteries. 2021 , 9, 4734-4743	19
674	Biomass-based materials for green lithium secondary batteries. 2021 , 14, 1326-1379	55
673	Influence of Powertrain Topology and Electric Machine Design on Efficiency of Battery Electric Trucks—A Simulative Case-Study. 2021 , 14, 328	6
672	Fuel Cell Electric Vehicles—A Brief Review of Current Topologies and Energy Management Strategies. 2021 , 14, 252	49
671	Review on Li Deposition in Working Batteries: From Nucleation to Early Growth. 2021 , 33, e2004128	70
670	MOF-derived CoNi,CoO,NiO@N-C bifunctional oxygen electrocatalysts for liquid and all-solid-state Zn-air batteries. 2021 , 13, 17655-17662	3

669	Tuning polyoxometalate composites with carbonaceous materials towards oxygen bifunctional activity. 2021 , 9, 9228-9237	6
668	Understanding multi-scale battery degradation with a macro-to-nano zoom through its hierarchy. 2021 , 9, 19886-19893	5
667	Hybrid Energy Storage System Based on Li-Ion and Li-S Battery Modules and GaN-Based DC-DC Converter. 2021 , 9, 132342-132353	2
666	Strategy of Enhancing the Volumetric Energy Density for Lithium-Sulfur Batteries. 2021 , 33, e2003955	66
665	Oxygen-Deficient Blue TiO ₂ for Ultrastable and Fast Lithium Storage. 2020 , 10, 1903107	41
664	Conductor-Free Anode of Transition Metal Dichalcogenide Nanosheets Self-Assembled with Graft Polymer Li-Ion Channels. 2021 , 11, 2003243	7
663	Requirements for Minerals and Metals for 100% Renewable Scenarios. 2019 , 437-457	19
662	Use of X-ray computed tomography for understanding localised, along-the-channel degradation of polymer electrolyte fuel cells. 2020 , 352, 136464	4
661	Mathematical modeling and numerical analysis of the discharge process of an alkaline zinc-cobalt battery. 2020 , 30, 101432	3
660	A numerical study of hydrogen leakage and diffusion in a hydrogen refueling station. 2020 , 45, 14428-14439	13
659	A promising anode candidate for rechargeable nickel metal hydride power battery: An A5B19-type La ₅ M ₂ Nd ₂ Mg ₂ Ni ₁₁ Al-based hydrogen storage alloy. 2020 , 465, 228236	6
658	100% Clean, Renewable Energy and Storage for Everything. 2020 ,	14
657	Sulfurized Polyacrylonitrile for High-Performance Lithium-Sulfur Batteries: In-Depth Computational Approach Revealing Multiple Sulfur's Reduction Pathways and Hidden Li Storage Mechanisms for Extra Discharge Capacity. 2021 , 13, 491-502	10
656	MoS ₂ -modified graphite felt as a high performance electrode material for zinc/polyiodide redox flow batteries. 2019 , 6, 731-735	7
655	Recent advances of hollow-structured sulfur cathodes for lithium/sulfur batteries. 2020 , 4, 2517-2547	7
654	Enhancing hosting capacity of intermittent wind turbine systems using bi-level optimisation considering OLTC and electric vehicle charging stations. 2020 , 14, 3558-3567	5
653	Effect of Deformation on Electrochemical Performance of Aluminum-Air Battery. 2020 , 167, 100505	2
652	Reconstruction of Lead Acid Battery Negative Electrodes after Hard Sulfation Using Controlled Chelation Chemistry. 2020 , 167, 120537	1

651	High Performance FeNC and Mn-oxide/FeNC Layers for AEMFC Cathodes. 2020 , 167, 134505	23
650	Effect of Temperature on the Performance Factors and Durability of Proton Exchange Membrane of Hydrogen Fuel Cell: A Narrative Review. 2020 , 17, 179-191	2
649	Stable silicon electrodes with vinylidene fluoride polymer binder for lithium-ion batteries. 2020 , 11, 58-71	2
648	A macroporous titanium oxynitride-supported bifunctional oxygen electrocatalyst for zinc-air batteries.	1
647	A high-performance lithiated silicon-sulfur battery enabled by fluorinated ether electrolytes.	2
646	Configuring solid-state batteries to power electric vehicles: a deliberation on technology, chemistry and energy. 2021 , 57, 12587-12594	2
645	N, S Co-Doped Bagasse Mesoporous Carbon with Enhanced Electrochemical Performance. 2021 , 16, 1161-1174	0
644	Enhancing Cell Performance of Lithium-Rich Manganese-Based Materials via Tailoring Crystalline States of a Coating Layer. 2021 , 13, 49390-49401	4
643	A Comparative Review of Alternative Fuels for the Maritime Sector: Economic, Technology, and Policy Challenges for Clean Energy Implementation. 2021 , 2, 456-481	4
642	Phase separation induces congestion waves in electric vehicle charging. 2021 , 104, L042302	0
641	Graphene-Based Cathode Materials for Lithium-Ion Capacitors: A Review. 2021 , 11,	3
640	Iron-doped nanoflakes of layered double hydroxide of nickel for high-performance hybrid zinc batteries. 2021 , 100879	2
639	Reduced Graphene-Oxide-Encapsulated MoS/Carbon Nanofiber Composite Electrode for High-Performance Na-Ion Batteries. 2021 , 11,	3
638	Synergistic Electrocatalysts for Alkaline Hydrogen Oxidation and Evolution Reactions. 2107479	13
637	Stability analysis of a phase-shifted full-bridge circuit for electric vehicles based on adaptive neural fuzzy PID control. 2021 , 11, 20040	0
636	Multicomponent nickel-based phosphide catalyst for overall water splitting.	0
635	Electron and Ion Co-Conductive Catalyst Achieving Instant Transformation of Lithium Polysulfide towards Li S. 2021 , e2105362	7
634	Enhanced Electrochemical Performance of LiNi _{0.8} Co _{0.1} Mn _{0.1} O ₂ with SiO ₂ Surface Coating Via Homogeneous Precipitation. 2021 , 8, 4321	1

633	Assessment and Recommendations for a Fossil Free Future for Track Work Machinery. 2021 , 13, 11444	4
632	Balance Effect: A Universal Strategy for Transition Metal Carbides to Enhance Hydrogen Evolution. 2108167	7
631	Mobile hydrogen reformers as a novel approach to decarbonise the transport sector. 2021 , 34, 100756	1
630	h-MoO ₃ /AlCl ₃ -Urea/Al: High performance and low-cost rechargeable Al-ion battery. 2021 , 516, 230656	4
629	CHAPTER 1:New High-energy Anode Materials. 2019 , 1-25	1
628	Binder-Free Thin-Film Electrode Fabricated by Spray Drying Method: A Case of LiFePO ₄ . 2021 , 18,	1
627	100% Clean, Renewable Energy and Storage for Everything. 2020 , 84-137	
626	100% Clean, Renewable Energy and Storage for Everything. 2020 , 395-407	
625	100% Clean, Renewable Energy and Storage for Everything. 2020 , 298-345	
624	Three Dimensional Macroporous Oxygen-Deficient TiO _{2-x} Supported N, P, Co-tridoped Carbon as Efficient Oxygen Reduction Electrocatalyst. 2022 , 14, e202101311	0
623	Ruthenium-Modified Bimetallic Zeolitic-Imidazolate Framework Derivative as a High-Efficient Catalyst for Rechargeable Zinc-Air Batteries.	1
622	Bayesian learning for rapid prediction of lithium-ion battery-cycling protocols. 2021 ,	5
621	Highly wrinkled palladium nanosheets as advanced electrocatalysts for the oxygen reduction reaction in acidic medium. 2021 , 431, 133237	4
620	A Review on PEM Fuel Cells Used for Automotive Applications, Models and Hydrogen Storage for Hybrid Electric Fuel Cell Vehicle.	2
619	Novel graphitic sheets with ripple-like folds as NCA-cathode coating layer for high-energy-density lithium-ion batteries. 2020 ,	2
618	Multi-unit Japanese auction for device agnostic energy management. 2022 , 136, 107350	1
617	Energy Storage Systems. 2020 , 27-39	
616	Electric Vehicle Charging Station Using ANPC Converter With Bipolar DC Bus. 2021 ,	0

615	Amphipathic Binder Integrating Ultrathin and Highly Ion-Conductive Sulfide Membrane for Cell-Level High-Energy-Density All-Solid-State Batteries. 2021 , e2105505	11
614	Differences in the Electrochemical Performance of Pt-Based Catalysts Used for Polymer Electrolyte Membrane Fuel Cells in Liquid Half- and Full-Cells. 2021 ,	15
613	Subatomic species transport through atomically thin membranes: Present and future applications. 2021 , 374, eabd7687	10
612	Laser Structured Gas Diffusion Layers for Improved Water Transport and Fuel Cell Performance.	0
611	Enhanced bifunctional catalytic performance of nitrogen-doped carbon composite to oxygen reduction and evolution reactions with the regulation of graphene for rechargeable Zn-air batteries. 2021 , 151730	0
610	NaF-rich Solid Electrolyte Interphase for Dendrite-free Sodium Metal Batteries. 2021 , 44, 477-477	6
609	Interfacial Covalent Bonding Endowing Ti C-Sb S Composites High Sodium Storage Performance. 2021 , e2104293	5
608	Template-free Synthesis of Co-based Oxides Nanotubes as Potential Anodes for Lithium-ion Batteries. 2021 , 162611	5
607	Construction of solid-liquid fluorine transport channel to enable highly reversible conversion cathodes. 2021 , 7, eabj1491	8
606	Experimental and simulation study of PEMFC based on ammonia decomposition gas as fuel.	0
605	Manganese oxide as an effective electrode material for energy storage: a review. 1	6
604	Single-Atom-like B-N Sites in Ordered Macroporous Carbon for Efficient Oxygen Reduction Reaction. 2021 , 13, 53892-53903	1
603	Estimation of Lithium-Ion Battery SOC Model Based on AGA-FOUKF Algorithm. 2021 , 9,	0
602	Lithiated Hybrid Polymer/Inorganic PAA/MnO ₂ Protection Layer for High-Performance Tin Oxide Alloy Anode.	2
601	100% Clean, Renewable Energy and Storage for Everything. 2020 , 138-157	
600	100% Clean, Renewable Energy and Storage for Everything. 2020 , 1-16	
599	Reduced inverters fed BDCM drives: an attempt to improve cost-effectiveness, compactness and reliability in hybrid vehicles. 2020 , 14, 2016-2026	0
598	100% Clean, Renewable Energy and Storage for Everything. 2020 , xiii-xv	

597 100% Clean, Renewable Energy and Storage for Everything. **2020**, 346-388

596 100% Clean, Renewable Energy and Storage for Everything. **2020**, 389-390

595 100% Clean, Renewable Energy and Storage for Everything. **2020**, 158-191

594 100% Clean, Renewable Energy and Storage for Everything. **2020**, 248-297

593 100% Clean, Renewable Energy and Storage for Everything. **2020**, 192-247

592 100% Clean, Renewable Energy and Storage for Everything. **2020**, 408-428

591 An Overview of Modeling and Control of a Through-the-Road Hybrid Electric Vehicle. **2021**, 399-417 1

590 Appendix. **2020**, 391-394

589 Wind-Water-Solar (WWS) and Storage Solution. **2020**, 17-83

588 Detailed simulation of regenerative braking of BLDC motor for electric vehicles.

587 High Charge and Discharge Rate Limitations in Ordered Macroporous Li-ion Battery Materials. **2020**, 167, 140532 2

586 Active site engineering of single-atom carbonaceous electrocatalysts for the oxygen reduction reaction.. **2021**, 12, 15802-15820 4

585 Self-templating synthesis of heteroatom-doped large-scalable carbon anodes for high-performance lithium-ion batteries. 16

584 Cold start investigation of fuel cell vehicles with coolant preheating strategy. **2022**, 201, 117816 1

583 Business models for electric vehicles: Literature review and key insights. **2022**, 330, 129803 2

582 Running battery electric vehicles with extended range: Coupling cost and energy analysis. **2022**, 306, 118116 7

581 Fast charging design for Lithium-ion batteries via Bayesian optimization. **2022**, 307, 118244 3

580 Modulation of pore-size in N, S-codoped carbon/Co9S8 hybrid for a stronger O2 affinity toward rechargeable zinc-air battery. **2022**, 92, 106750 3

579	The Cross-Coupling of Methane with Nonoxidative Hydrocarbons. 2022 , 71-106	
578	Theoretical study of SnS ₂ encapsulated in Graphene as a promising anode material for K-ion batteries. 2021 ,	
577	Crosslinked Polymer-Brush Electrolytes: An Approach to Safe All-Solid-State Lithium Metal Batteries at Room Temperature.	1
576	Controlled Hydrolysis of a NickelAmmonia Complex on Pt Nanoparticles for the Preparation of Highly Active and Stable PtNi/C Catalysts.	0
575	Single-Crystalline Ni-Rich layered cathodes with Super-Stable cycling. 2021 , 133731	3
574	Design of Co Nanoparticles-Encapsulated by Boron and Nitrogen Co-Doped Carbon Nanosheets as Highly Efficient Electrocatalyst for Oxygen Reduction Reaction. 2101454	2
573	Unraveling a Graphene Exfoliation Technique Analogy in the Making of Ultrathin Nickel-Iron Oxyhydroxides@Nickel Foam to Promote the OER. 2021 , 13, 55281-55291	5
572	BC ₆ N as a promising sulfur host material for lithium-sulfur batteries. 2021 , 577, 151843	1
571	Achieving a Stable Solid Electrolyte Interphase and Enhanced Thermal Stability by a Dual-Functional Electrolyte Additive toward a High-Loading LiNiMnCoO /Lithium Pouch Battery. 2021 , 13, 57142-57152	1
570	Ultralong-Life Cathode for Aqueous Zinc-Organic Batteries via Pouring 9,10-Phenanthraquinone into Active Carbon. 2021 ,	6
569	Square-Scheme Electrochemistry in Battery Electrodes.	2
568	Closed-loop selective recycling process of spent LiNiCoMnO batteries by thermal-driven conversion. 2021 , 424, 127757	3
567	In Situ Visualization of Li-Whisker with Grating-Interferometry-Based Tricontrast X-ray Microtomography. 1786-1792	1
566	Hybrid electrocatalyst of CoFe ₂ O ₄ decorating carbon spheres for alkaline oxygen evolution reaction. 2021 , 48, 5442-5442	0
565	A First-Principles study of monolayer and heterostructure antimonene as potential anode materials for Magnesium-ion batteries. 2021 , 577, 151880	2
564	Two-dimensional mesoporous B, N co-doped carbon nanosheets decorated with TiN nanostructures for enhanced performance lithiumSulfur batteries. 2021 , 127, 1	0
563	Estimating battery state of charge using recurrent and non-recurrent neural networks. 2021 , 47, 103660	1
562	Bismuth Nanoparticles Encapsulated in Nitrogen-Rich Porous Carbon Nanofibers as a High-Performance Anode for Aqueous Alkaline Rechargeable Batteries.. 2022 , 18, e2105770	1

561	Computational modelling of structural batteries accounting for stress-assisted convection in the electrolyte. 2021 , 238, 111343	2
560	Regenerating Anode Materials from Scrapped Lithium-Ion Battery by High-Temperature Treatment.	
559	Outstanding supercapacitor performance with intertwined flower-like NiO/MnO ₂ /CNT electrodes. 2022 , 149, 111745	4
558	Exploring behaviors and satisfaction of micro-electric vehicle sharing service users: Evidence from a demonstration project in Jeju Island, South Korea. 2022 , 79, 103673	0
557	Electrospun conductive carbon nanofiber hosts for stable zinc metal anode.	1
556	Real-time monitoring of internal structural deformation and thermal events in lithium-ion cell via embedded distributed optical fibre. 2022 , 521, 230957	2
555	Two new anion exchange membranes based on poly(bis-arylimidazolium) ionenes blend polybenzimidazole. 2022 , 240, 124491	2
554	Positively-charged nanofiltration membranes constructed via gas/liquid interfacial polymerization for Mg ²⁺ /Li ⁺ separation. 2022 , 644, 119942	2
553	Material flow analysis for end-of-life lithium-ion batteries from battery electric vehicles in the USA and China. 2022 , 178, 106061	8
552	Greases for electric vehicle motors: thickener effect and energy saving potential. 2022 , 167, 107400	2
551	Intertwined carbon networks derived from Polyimide/Cellulose composite as porous electrode for symmetrical supercapacitor. 2021 , 609, 179-187	9
550	Rhodium nanodendrites catalyzed alkaline methanol oxidation reaction in direct methanol fuel cells. 2022 , 31, e00379	4
549	Regenerating spent graphite from scrapped lithium-ion battery by high-temperature treatment. 2022 , 189, 493-502	1
548	A review of the microporous layer in proton exchange membrane fuel cells: Materials and structural designs based on water transport mechanism. 2022 , 156, 111998	2
547	Prospects on end of life electric vehicle batteries through 2050 in Catalonia. 2022 , 180, 106133	2
546	State-of-Charge Estimation of Li-ion Battery at Variable Ambient Temperature with Gated Recurrent Unit Network. 2020 ,	2
545	Simulation of thermal runaway prediction model for nickel-rich Lithium ion batteries. 2020 ,	2
544	Ultra-long KFeS ₂ nanowires grown on Fe foam as a high-performance anode for aqueous solid-state energy storage. 2021 , 9, 27727-27735	1

543	Effect of the Slurry Mixing Process on the Structural Properties of the Anode and the Resulting Fast-Charging Performance of the Lithium-Ion Battery Cell. 2022 , 169, 020531	2
542	Hybrid PV Systems and Colocalization of Charging and Filling Stations for Electrification of Road Transport Sector. 2100461	
541	Hydrogen-powered vehicles for autonomous ride-hailing fleets. 2022 , 47, 9422-9427	4
540	Si-based polymer-derived ceramics for energy conversion and storage. 2022 , 11, 197-246	2
539	Multiperspective Optimization of Cell and Module Dimensioning for Different Lithium-Ion Cell Formats on Geometric and Generic Assumptions. 2100874	1
538	Modification Strategies of Layered Double Hydroxides for Superior Supercapacitors. 2100183	1
537	Fault Identification of Lithium-Ion Battery Pack for Electric Vehicle Based on GA Optimized ELM Neural Network. 2022 , 10, 15007-15022	0
536	Recent advances in heterostructured cathodic electrocatalysts for non-aqueous Li-O batteries.. 2022 , 13, 2841-2856	0
535	A perspective on development of fuel cell materials: Electrodes and electrolyte.	3
534	Optimal operational strategy for a future electricity and hydrogen supply system in a residential area. 2022 , 47, 4426-4440	0
533	Protonated phosphonic acid electrodes for high power heavy-duty vehicle fuel cells. <i>Nature Energy</i> , 62.3	6
532	Coordinated Co-NC/CoFe Dual Active Centre Embedded Three-dimensional Ordered Macroporous Framework as Bifunctional Catalyst for Efficient and Stable Zinc-Air Batteries.. 2021 ,	
531	Synthesis of Co/CeO hetero-particles with abundant oxygen-vacancies supported by carbon aerogels for ORR and OER.. 2022 ,	3
530	Confidence-based Ant Colony Optimization for Capacitated Electric Vehicle Routing Problem with Comparison of Different Encoding Schemes. 2022 , 1-1	0
529	Project portfolio planning under CO ₂ fleet emission restrictions in the automotive industry.	0
528	A review of fuel additives' effects and predictions on internal combustion engine performance and emissions. 2022 , 10, 1-22	0
527	High Performance Gas Diffusion Layers with Added Deterministic Structures.	3
526	Probing heat generation and release in a 57.5 A h high-energy-density Li-ion pouch cell with a nickel-rich cathode and SiO _x /graphite anode. 2022 , 10, 1227-1235	1

525	Resource Availability and Implications for the Development of Plug-In Electric Vehicles. 2022 , 14, 1665	2
524	Mechanistic and nanoarchitectonics insight into Li ⁺ ost interactions in carbon hosts for reversible Li metal storage. 2022 , 95, 106999	1
523	Toward Practical High-Energy and High-Power Lithium Battery Anodes: Present and Future.. 2022 , e2105213	9
522	Review on State-of-the-Art Unidirectional Non-Isolated Power Factor Correction Converters for Short-/Long-Distance Electric Vehicles. 2022 , 10, 11308-11340	4
521	Electrochemical performance of graphite/silicon/pitch anode composite prepared by metal etching process. 2022 , 39, 928	1
520	H ₂ O and CO ₂ surface contamination of the lithium garnet Li ₇ La ₃ Zr ₂ O ₁₂ solid electrolyte.	0
519	Electric hydraulic hybrid vehicle powertrain design and optimization-based power distribution control to extend driving range and battery life cycle. 2022 , 252, 115094	2
518	Regulated Synthesis of NaVOPO with an Enhanced Conductive Network as a High-Performance Cathode for Aqueous Na-Ion Batteries.. 2022 ,	0
517	Influence of an electrified interface on the entropy and energy of solvation of methanol oxidation intermediates on platinum(111) under explicit solvation.. 2022 ,	0
516	Na ₃ VO ₄ Nanoparticles on Honeycomb Carbon Networks for Enhanced Lithium Storage Performance. 2022 , 5, 2405-2413	0
515	Connecting battery technologies for electric vehicles from battery materials to management.. 2022 , 25, 103744	6
514	Modulating superlattice structure and cyclic stability of Ce ₂ Ni ₇ -type La ₂ Ni _{10.5} -based alloys by Mn, Al, and Zr substitutions. 2022 , 524, 231067	0
513	Worldwide ubiquitous utilization of lithium-ion batteries: What we have done, are doing, and could do safely once they are dead?. 2022 , 523, 231015	1
512	Effect of Nb ⁵⁺ doping on the microstructure and conductivity of Li _{1.125} Ta _{0.875} Zr _{0.125} SiO ₅ electrolyte. 2022 , 902, 163760	0
511	Recent development and prospect of membranes for alkaline zinc-iron flow battery. 2022 , 2, 100029	1
510	Doping and Interface Engineering in Sandwich Ti ₃ C ₂ T _x /MoS ₂ -xPx Heterostructure for Efficient Hydrogen Evolution.	2
509	Fuel cell hybrid vehicles and their role in the decarbonisation of road transport. 2022 , 130902	0
508	Predicting the lifetime of Lithium-Ion batteries: Integrated feature extraction and modeling through sequential Unsupervised-Supervised Projections (USP). 2022 , 252, 117510	0

507	Application of Advanced Vibrational Spectroscopy in Revealing Critical Chemical Processes and Phenomena of Electrochemical Energy Storage and Conversion.. 2022 ,	4
506	Modeling of the temporal evolution of polysulfide chains within the lithium-sulfur battery. 2022 ,	1
505	Composite solid-state electrolyte based on hybrid poly(ethylene glycol)-silica fillers enabling long-life lithium metal batteries. 2022 , 140060	0
504	A Critical Review on the Use of Ionic Liquids in Proton Exchange Membrane Fuel Cells.. 2022 , 12,	10
503	Branched Anion-Conducting Poly(arylene alkylene)s for Alkaline Membrane Fuel Cells.	0
502	A Highly Reversible, Dendrite-free Zinc Metal Anodes enabled by a dual-layered interface. 2022 , 47, 491-491	10
501	Carboxymethylated tamarind polysaccharide gum as a green binder for silicon-based lithium-ion battery anodes. 2022 , 136, 107241	0
500	Recent progress in low-dimensional palladium-based nanostructures for electrocatalysis and beyond. 2022 , 459, 214388	7
499	Constructing a universal artificial polymeric ionic liquid interfacial film for graphite anode and High-Voltage cathode. 2022 , 435, 135101	0
498	Prussian blue analogues for sodium-ion batteries: past, present and future.. 2021 , e2108384	19
497	High-Index Faceted Nanocrystals as Highly Efficient Bifunctional Electrocatalysts for High-Performance Lithium-Sulfur Batteries.. 2021 , 14, 40	9
496	Design Strategy for Mxene and Metal Chalcogenides/Oxides Hybrids for Energy Storage and Conversion.	
495	Mesoporous Nitrogen-Doped Carbon MnO <sub>2</sub> Multichannel Nanotubes With High Performance for Li-Ion Batteries.	
494	Key to intimately coupling metal chalcogenides with a carbon nanonetwork for potassium-ion storage.	0
493	Innovation in Solar Technology: Toward a 100% Renewable Electricity Future. 2022 , 3-12	1
492	One-step Fabrication of Robust Lithium Ion Battery Separators by Polymerization-Induced Phase Separation.	2
491	An Environmental Sustainability Analysis Tool for Next Generation Lithium Ion Batteries of Electric Vehicles. 2022 , 105, 489-494	0
490	Reinforced Hydroxylated Boron Nitride on Porous Sulfonated Poly (Ether Sulfone) with Excellent Electrolyte Properties for H ₂ /O ₂ Fuel Cells.	

489	A Strategy for Preparing Solid Polymer Electrolyte Containing in Situ Synthesized ZnO Nanoparticles with Excellent Electrochemical Performance.	
488	What's Blocking Fuel-Cell Electric Vehicle Diffusion? Evidence from Germany, Japan and California.	
487	Challenges and advances in wide-temperature rechargeable lithium batteries.	13
486	Lithium-rich sulfide/selenide cathodes for next-generation lithium-ion batteries: challenges and perspectives.. 2022 ,	2
485	Surface oxygenation induced strong interaction between Pd catalyst and functional support for zinc-air batteries.	4
484	Polysulfide Regulation by Hypervalent Iodine Compounds for Durable and Sustainable Lithium-Sulfur Battery.. 2022 , e2106716	0
483	Research on the Reversible and Irreversible Heat Generation of LiNi _{1-x-y} CoxMnyO ₂ -Based Lithium-Ion Batteries. 1	1
482	Quantifying the electrochemical active site density of precious metal-free catalysts in situ in fuel cells. 2022 , 5, 163-170	9
481	Ultrafast Lithium-Ion Batteries with Long-Term Cycling Performance Based on Titanium Carbide/3D Interconnected Porous Carbon. 2022 , 8,	0
480	Isoindolinium Groups as Stable Anion Conductors for Anion-Exchange Membrane Fuel Cells and Electrolyzers.	2
479	A Better Zn-Ion Storage Device: Recent Progress for Zn-Ion Hybrid Supercapacitors.. 2022 , 14, 64	5
478	Analysis of the Li-ion battery industry in light of the global transition to electric passenger light duty vehicles until 2050. 2022 , 2, 011002	1
477	Stabilizing Cobalt Single Atoms via Flexible Carbon Membranes as Bifunctional Electrocatalysts for Binder-Free Zinc-Air Batteries.. 2022 ,	6
476	Boosting Hydrogen Oxidation Performance of Phase-Engineered Ni Electrocatalyst under Alkaline Media. 2022 , 10, 3682-3689	2
475	Enabling the High-Voltage Operation of Layered Ternary Oxide Cathodes via Thermally Tailored Interphase.. 2022 , e2100920	2
474	A Comprehensive Understanding of Interlayer Engineering in Layered Manganese and Vanadium Cathodes for Aqueous Zn-ion Batteries.. 2022 ,	3
473	Parameter Estimation-Based Slime Mold Algorithm of Photocatalytic Methane Reforming Process for Hydrogen Production. 2022 , 14, 2970	
472	Fast-charging and dendrite-free lithium metal anode enabled by partial lithiation of graphene aerogel. 1	0

471	Atomically dispersed quintuple nitrogen and oxygen co-coordinated zirconium on graphene-type substrate for highly efficient oxygen reduction reaction. 2022 , 3, 100773	0
470	Monolayer C5N : A Promising Building Block for the Anode of K. 2022 , 17,	0
469	Building Practical High-voltage Cathode Materials for Lithium-ion Batteries.. 2022 , e2200912	8
468	Review of modification strategies in emerging inorganic solid-state electrolytes for lithium, sodium, and potassium batteries. 2022 , 6, 543-587	8
467	Tracking Passivation and Cation Flux at Incipient Solid-Electrolyte Interphases on Multi-Layer Graphene using High Resolution Scanning Electrochemical Microscopy. 2022 , 9,	1
466	Multi-Functionalized Polymers as Organic Cathodes for Sustainable Sodium/Potassium-Ion Batteries.	1
465	Production of a monolithic fuel cell stack with high power density.. 2022 , 13, 1263	1
464	Sustainable development and incumbents' open innovation strategies for a greener competence-destroying technology: The case of electric vehicles.	2
463	Comparative Study of Conventional Electrolytes for Rechargeable Magnesium Batteries.	2
462	Simulation of Mass and Heat Transfer in an Evaporatively Cooled PEM Fuel Cell. 2022 , 15, 2734	0
461	Bioinspired Self-assembled Fe/Cu-Phenolic Blocks Building of Hierarchical Porous Biomass-Derived Carbon Aerogels for Enhanced Electrocatalytic Oxygen Reduction. 2022 , 128932	0
460	Metal-Ion-Coupled Electron Transfer Kinetics in Intercalation-Based Transition Metal Oxides*. 2022 , 9-31	
459	A significant enhancement of cycling stability at fast charging rate through incorporation of Li3N into LiF-based SEI in SiO anode for Li-ion batteries. 2022 , 412, 140107	2
458	Electrochemically Activated Surface Reconstruction of PdCu Nanotubes for Improved Ethanol Oxidation Electrocatalysis. 2100216	1
457	Facile crafting of ultralong N-doped carbon nanotube encapsulated with FeCo nanoparticles as bifunctional electrocatalyst for rechargeable zinc-air batteries. 2022 , 336, 111850	0
456	Deep learning for full-feature X-ray microcomputed tomography segmentation of proton electron membrane fuel cells. 2022 , 161, 107768	1
455	Feasibility study of a novel oil-immersed battery cooling system: Experiments and theoretical analysis. 2022 , 208, 118251	2
454	Utilization of surface-induced capacitive behavior: A promising strategy to improve low temperature performance of Li-ion batteries. 2022 , 192, 227-233	2

453	Pillaring of a conductive polymer in layered V2O5 boosting ultra-fast Zn ²⁺ /H ⁺ storage in aqueous media. 2022 , 416, 140270	1
452	Fast and extensive intercalation chemistry in Wadsley-Roth phase based high-capacity electrodes. 2022 , 69, 601-611	2
451	Upcycling of electroplating sludge into Fe ₃ C-decorated N,P dual-doped porous carbon via microalgae as efficient sulfur host for lithium-sulfur batteries. 2022 , 30, 101869	0
450	Practicality of methyl acetate as a co-solvent for fast charging Na-ion battery electrolytes. 2022 , 416, 140217	0
449	Mesoporous nitrogen-doped carbon MnO ₂ multichannel nanotubes with high performance for Li-ion batteries. 2022 , 97, 107235	0
448	Boosting the OER/ORR/HER activity of Ru-doped Ni/Co oxides heterostructure. 2022 , 439, 135634	6
447	On the coupled thermo-electro-thermo-mechanical performance of structural batteries with emphasis on thermal effects. 2022 , 94, 104586	0
446	Prototype design and experimental study of a metal alloy-based thermal energy storage system for heat supply in electric vehicles. 2022 , 51, 104393	0
445	A novel organosilicon-type binder for LiCoO ₂ cathode in Li-ion batteries. 2022 , 49, 58-66	0
444	Design strategy for MXene and metal chalcogenides/oxides hybrids for supercapacitors, secondary batteries and electro/photocatalysis. 2022 , 464, 214544	4
443	Self-adaptive anode design with graphene-coated SiO _x /graphite for high-energy Li-ion batteries. 2022 , 442, 136166	4
442	Anion-Decoordination Cell Formation Process Stabilizes Dual Electrodes for Long-Life Quasi-Solid-State Lithium Metal Battery. 2022 , 9, 2101840	0
441	Dimensionally Stable Polyimide Frameworks Enabling Long-Life Electrochemical Alkali-Ion Storage.. 2021 ,	0
440	Recent Advances in Materials Design Using Atomic Layer Deposition for Energy Applications. 2022 , 32, 2109105	4
439	Mapping the Territorial Adaptation of Technological Innovation Systems—Trajectories of the Internal Combustion Engine. 2022 , 14, 113	2
438	High-Efficiency Hybrid Sulfur Cathode Based on Electroactive Niobium Tungsten Oxide and Conductive Carbon Nanotubes for All-Solid-State Lithium-Sulfur Batteries.. 2021 ,	3
437	STEM-EELS Spectrum Imaging of an Aerosol-Deposited NASICON-Type LATP Solid Electrolyte and LCO Cathode Interface. 2022 , 5, 98-107	1
436	Recent Development of Nickel-Rich and Cobalt-Free Cathode Materials for Lithium-Ion Batteries. 2021 , 7, 84	0

435	A delicately designed functional binder enabling in situ construction of 3D cross-linking robust network for high-performance Si/graphite composite anode.	2
434	Laboratory X-ray Microscopy Study of Microcrack Evolution in a Novel Sodium Iron Titanate-Based Cathode Material for Li-Ion Batteries. 2022 , 12, 3	0
433	Rechargeable Batteries: Regulating Electronic and Ionic Transports for High Electrochemical Performance. 2101107	1
432	Tackling Climate Change with Machine Learning. 2023 , 55, 1-96	26
431	SOH Estimation of Li-Ion Battery Using Discrete Wavelet Transform and Long Short-Term Memory Neural Network. 2022 , 12, 3996	0
430	Interplay of hetero-MN4 catalytic sites on graphene for efficient oxygen reduction reaction. 2022 , 140397	0
429	A system for electric vehicle's energy-aware routing in a transportation network through real-time prediction of energy consumption. 1	0
428	Enabling Stable Cycling of 4.6 V High-Voltage LiCoO ₂ with an In Situ-Modified PEGDA-Based Quasi-Solid Electrolyte.	0
427	MIL-47(V) Derived V ₂ O ₅ @Carbon Core-Shell Microcuboids with Oxygen Vacancies as Advanced Conversion Cathode for High Performance Zinc Ion Batteries.	0
426	Rational design and synthesis of one-dimensional platinum-based nanostructures for oxygen-reduction electrocatalysis. 2022 , 43, 1459-1472	19
425	Solid state lithium metal batteries Issues and challenges at the lithium-solid electrolyte interface. 2022 , 26, 100999	4
424	Processing and manufacturing of next generation lithium-based all solid-state batteries. 2022 , 26, 101003	3
423	Bamboo-like N,S-doped carbon nanotubes with encapsulated Co nanoparticles as high-performance electrocatalyst for liquid and flexible all-solid-state rechargeable Zn-air batteries. 2022 , 593, 153446	1
422	datasheet1.pdf. 2020 ,	
421	Data_Sheet_1.docx. 2019 ,	
420	Thermally Conductive AlN-Network Shield for Separators to Achieve Dendrite-Free Plating and Fast Li-Ion Transport toward Durable and High-Rate Lithium-Metal Anodes.. 2022 , e2200411	2
419	Exchange-Mediated Transport in Battery Electrolytes: Ultrafast or Ultraslow?. 2022 ,	3
418	Highly Accessible and Dense Surface Single Metal FeN ₄ Active Sites for Promoting Oxygen Reduction.	12

417	Ether-based electrolytes for sodium ion batteries.. 2022,	20
416	Electrolyte additive enabled low temperature lithium metal batteries.	1
415	The generalized solubility limit approach for vanadium based cathode materials for lithium-ion batteries.	
414	Formulating energy density for designing practical lithium-sulfur batteries. <i>Nature Energy</i> , 2022 , 7, 312-319.3	31
413	Asymmetric Porous and Highly Hydrophilic Sulfonated Cellulose/Biomembrane Functioning as a Separator in a Lithium-Ion Battery.	1
412	Zeolitic Imidazolate Framework-Derived Copper Single Atom Anchored on Nitrogen-Doped Porous Carbon as a Highly Efficient Electrocatalyst for the Oxygen Reduction Reaction toward Zn-Air Battery. 2022 , 34, 4104-4114	0
411	SnS ₂ Monolayer-Supported Transition Metal Atoms as Efficient Bifunctional Oxygen Electrocatalysts: A Theoretical Investigation. 2022 , 36, 4992-4998	0
410	A geometrical criterion for the dynamic snap-off event of a non-wetting droplet in a rectangular pore-throat microchannel. 2022 , 34, 042014	2
409	Comparative analysis of powertrain optimization for Small electric vehicle based on range and weight for Retro-fitment. 2022,	
408	The effect of sodium and niobium co-doping on electrochemical performance of Li ₄ Ti ₅ O ₁₂ as anode material for lithium-ion batteries. 1	0
407	Low-temperature gasoline fuel cell based on phosphotungstic acid: a proof-of-concept. 2022,	
406	A Review of Wireless Power Transfer Systems for Electric Vehicle Battery Charging with a Focus on Inductive Coupling. 2022 , 11, 1355	7
405	Activating copper oxide for stable electrocatalytic ammonia oxidation reaction via in-situ introducing oxygen vacancies.	1
404	Disentangling Electronic and Geometric Effects in Electrocatalysis through Substitution in Isostructural Intermetallic Compounds.. 2022,	4
403	Investigation of a Fluorine-Free Phosphonium-Based Ionic Liquid Electrolyte and Its Compatibility with Lithium Metal.. 2022,	1
402	Enabling high energy lithium metal batteries via single-crystal Ni-rich cathode material co-doping strategy.. 2022 , 13, 2319	9
401	Ionic Liquid Electrolytes for Next-generation Electrochemical Energy Devices. 2022 , 100075	5
400	Understanding the Role of Topotactic Anion Exchange in the Robust Cu Ion Storage of CuS _{1-x} Sex. 2022 , 7, 1835-1841	0

399	Charge/Discharge Behavior of Graphite Negative Electrodes in FSA-Based Ionic Liquid Electrolytes: Comparative Study of Li-, Na-, K-Ion Systems. 2022 , 169, 050507	3
398	High Graphitic Carbon Derived from Coconut Coir Waste by Promoting Potassium Hydroxide in the Catalytic Graphitization Process for Lithium-Ion Battery Anodes.	1
397	Scalable Fabrication of Si-Graphite Microsphere by Mechanical Processing for Lithium-Ion Battery Anode with Large Capacity and High Cycling Stability.	0
396	Nano-crumpled induced Sn-Bi bimetallic interface pattern with moderate electron bank for highly efficient CO electroreduction.. 2022 , 13, 2486	6
395	Hydrogen energy deployment in decarbonizing transportation sector using multi-supply-demand integrated scenario analysis with nonlinear programming [A Shanxi case study. 2022 ,	1
394	Unveiling the Stress-Buffering Mechanism of the Deep Lithiated Ag Nanowires: A Polymer Segmental Motion Strategy toward the Ultra-Robust Li Metal Anode. 2203010	1
393	An Analysis of the Promise of Li ₁₀ S and Li ₁₀ S Batteries Incorporating Plasmonic Metal Nanostructures. 2022 , 101033	
392	Self-ball milling strategy to construct high-entropy oxide coated LiNi _{0.8} Co _{0.1} Mn _{0.1} O ₂ with enhanced electrochemical performance. 2022 , 11, 882	0
391	Quantitative visualization of ion and thermal distributions in electrolytes during operation of electrochemical devices by Operando phase-contrast X-ray imaging. 1	
390	Chitosan nanohybrid proton exchange membranes based on CNT and exfoliated MoS ₂ for fuel cell applications. 2022 , 29, 1	0
389	Evaluation of electric vehicle power technologies: Integration of technological performance and market preference. 2022 , 5, 100063	1
388	Potentials of prognostics and health management for polymer electrolyte fuel cells in aviation applications. 2022 , ahead-of-print,	0
387	Rational design of 3D hierarchical MOFs-derived hollow porous carbon/Ni(OH) ₂ nanosheet for long-cycle Li/Na ₂ S ₂ O ₈ batteries. 2022 , 239, 109948	0
386	Polypyrrole-intercalation tuning lamellar structure of V ₂ O ₅ ·nH ₂ O boosts fast zinc-ion kinetics for aqueous zinc-ion battery. 2022 , 536, 231489	3
385	Preparation of macadamia nut shell porous carbon and its electrochemical performance as cathode material for lithium/sulfur batteries. 2022 , 420, 140454	1
384	A porous-rib flow field for performance enhancement in proton exchange membrane fuel cells. 2022 , 263, 115707	0
383	Additive manufacturing of 3D batteries: a perspective.	1
382	Advanced inorganic/polymer hybrid electrolytes for all-solid-state lithium batteries. 1	2

- 381 Achieving high-efficient oxygen reduction reaction via a molecular Fe single atom catalyst. 0
- 380 In-situ visualization of the transition metal dissolution in layered cathodes. 1-13
- 379 Si-P-Ti stabilized Si-P/Ti₃C₂T_x nanohybrids for enhanced lithium-ion storage. 1
- 378 Synergistic melamine intercalation and Zn(NO₃)₂ activation of N-doped porous carbon supported Fe/Fe₃O₄ for efficient electrocatalytic oxygen reduction. **2022**, 12, 15705-15712 0
- 377 Two-dimensional metal-organic frameworks as efficient electrocatalysts for bifunctional oxygen evolution/reduction reactions. 1
- 376 Comprehensive Design of Small Electric Vehicle for Powertrain Optimization for Optimum Range with Weight and Size Reduction. **2022**, 443-486
- 375 Exfoliation of Active Materials Synchronized with Electrolyte Extraction from Spent Lithium-Ion Batteries by Supercritical CO₂. **2022**, 7, 1
- 374 An angstrom-level d-spacing control of graphite oxide using organofillers for high-rate lithium storage. **2022**, 5
- 373 Reinforced Hydroxylated Boron Nitride on Porous Sulfonated Poly(ether sulfone) with Excellent Electrolyte Properties for H₂/O₂ Fuel Cells.
- 372 Review of room-temperature liquid metals for advanced metal anodes in rechargeable batteries. **2022**, 2
- 371 Holistic battery system design optimization for electric vehicles using a multiphysically coupled lithium-ion battery design tool. **2022**, 52, 104854 1
- 370 A biomass derived porous carbon materials with adjustable interfacial electron transmission dynamics as highly-efficient air cathode for Zn-Air battery. **2022**, 153, 111908 1
- 369 SiO_x@Si-Graphite Microspheres for High-Stable Anode of Lithium-Ion Batteries.
- 368 Processing of Lithium Metal for the Production of Post-Lithium-Ion Batteries Using a Pulsed Nanosecond Fiber Laser.
- 367 Microstructure and Surface Engineering Through Indium Modification on Ni-Rich Layered Cathode Materials for Enhanced Electrochemical Performance of Lithium-Ion Batteries.
- 366 N-Doped Graphitized Carbon-Coated Fe₂O₃ Nanoparticles/Highly Graphitized Carbon Hollow Fibers for Advanced Lithium-Ion Batteries Application.
- 365 Biomass-derived cobalt/ carbon hierarchically structured composites for efficient oxygen electrocatalysis and zinc-air batteries. 1
- 364 Stable Cycling of Room-Temperature Sodium-Sulfur Batteries Based on an In Situ Crosslinked Gel Polymer Electrolyte. 2201191 0

- 363 Barriers and Enablers of Circular Economy Implementation for Electric-Vehicle Batteries: From Systematic Literature Review to Conceptual Framework. **2022**, 14, 6359 2
- 362 Impact of Coordination Environment on Single-Atom-Embedded C₃N for Oxygen Electrocatalysis. 0
- 361 Interface Engineering to Boost Thermal Safety of Microsized Silicon Anodes in Lithium-Ion Batteries. 2200380 2
- 360 Optimized Oxygen Reduction Reaction of Sm_{0.7}La_{0.3}Mn₂O₅ Nanorods by a Lanthanum Dopant for Zinc-Air Batteries. 0
- 359 Defect-Engineered Co₃O₄@Nitrogen-Deficient Graphitic Carbon Nitride as an Efficient Bifunctional Electrocatalyst for High-Performance Metal-Air Batteries. 2202194 2
- 358 Does the thermal conductivity of gas diffusion layer matter in polymer electrolyte fuel cells?. **2022**, 540, 231539 0
- 357 Optimization strategy for coupled battery system design models using Gaussian Process Regression and Classification. **2022**, 52, 104998 0
- 356 Exceptionally durable CoFe-exsolved Sr_{0.95}Nb_{0.1}Co_{0.7}Fe_{0.2}O₃ catalyst for rechargeable Zn-air batteries. **2022**, 315, 121553 1
- 355 Impact of Pt Spatial Distribution on the Relative Humidity Tolerance of Pt/C Catalysts for Fuel Cell Applications. 0
- 354 Mechanistic interactions in polymer electrolyte fuel cell catalyst layer degradation. 0
- 353 Long-range dispersion-inclusive machine learning potentials for structure search and optimization of hybrid organic-inorganic interfaces. 2
- 352 The decoupling of ion-pairing and ion-conduction in ultrahigh-concentration electrolytes enables wide-temperature solid-state batteries. 4
- 351 Engineering Strong Electronegative Nitrogen-Rich Porous Organic Polymer for Practical Durable Lithium-Sulfur Battery. 0
- 350 A stakeholder impact analysis of the production of the energy vector hydrogen. **2022**, 231-247 0
- 349 Practicality Assessment: Temperature-governed Performance of CO₂-containing LiO₂ Batteries. **2022**, 137744 0
- 348 Network Size Control in Coordination Polymer Glasses and Its Impact on Viscosity and H⁺ Conductivity. 0
- 347 Biomass coffee grounds derived nitrogen-doped ultrafine carbon nanoparticles as an efficient electrocatalyst to oxygen reduction reaction. **2022**, 165895 0
- 346 Surface-Alloyed Nanoporous Zinc as Reversible and Stable Anodes for High-Performance Aqueous Zinc-Ion Battery. **2022**, 14, 7

- 345 Evaluation of a Back-up Range Extender and Other Heavy-Duty BEV-Supporting Systems. **2022**, 13, 102 0
- 344 Modulation of Backbone Architecture to Design Structurally Durable Tetracyanoquinodimethane Derivatives with High Redox Activity.
- 343 Molybdenum-Doped Nickel Disulfide (NiS₂:Mo) Microspheres as an Active Anode Material for High-Performance Durable Lithium-Ion Batteries. 0
- 342 All-Solid-State LiS Batteries Enhanced by Interface Stabilization and Reaction Kinetics Promotion through 2D Transition Metal Sulfides. 2200539 1
- 341 Reducing Environmental Impact Using Vehicle Route Planning. **2023**, 248-256 1
- 340 Polyanion-assisted ionic-electronic conductive agents designed for high density Si-based anodes. **2022**, 541, 231728 0
- 339 Prussian blue analogue/KB-derived Ni/Co/KB composite as a superior adsorption-catalysis separator modification material for Li-S batteries. **2022**, 625, 425-434 0
- 338 Stable Cycling of Si Nanowire Electrodes Enabled by Fluorine-Free Cyano-Based Ionic Liquid Electrolyte.
- 337 On the stability of anion exchange membrane fuel cells incorporating polyimidazolium ionene (Aemion+) membranes and ionomers. 1
- 336 Designing a Nickel (II) Thiourea-formaldehyde Polymer/Nanocarbon Bifunctional Molecular Catalyst with Superior ORR, OER Activities and its Application to Zn-air Battery.
- 335 Analysing oxygen reduction electrocatalysis on transition metal doped niobium oxide(110). 0
- 334 New challenges in oxygen reduction catalysis: a consortium retrospective to inform future research. 1
- 333 Polydimethylsiloxane functionalized separator for a stable and fast lithium metal anode.
- 332 Gallium-based liquid metals for lithium-ion batteries. 0
- 331 Carbon Nanotube-Coupled Seaweed-like Cobalt Sulfide as a Dual-Functional Catalyst for Overall Water Splitting. **2022**, 14, 30847-30856 0
- 330 A novel air-stable O3-type layered oxide cathode material with low Ni content for sodium-ion batteries.
- 329 Practical Graphene Technologies for Electrochemical Energy Storage. 2204272 2
- 328 Performance Assessment of Electrically Converted Diesel Fuel Driven Commercial Vehicle. **2022**, 2272, 012006

- 327 Integrated Fuzzy-Logic and Triple-Loop PI-Based Management Strategy for a Lead-Acid/Lithium-Ion Hybrid Battery Energy Storage System. **2022**, 12, 6910
- 326 Rational design of intrinsic and defective BGe monolayer as the anode material for Li-ion batteries. **2022**, 123418 0
- 325 Exploration of two-dimensional molybdenum-borides and potential applications. **2022**, 6, 0
- 324 Study of influences on the direct electrolysis of silica in molten salt: particle size, temperature, time and voltage. 1-11
- 323 A numerical study of mechanical degradation of Carbon-Coated Graphite Active Particles in Li-ion battery anodes.
- 322 Hydrogen Fuel for Future Mobility: Challenges and Future Aspects. **2022**, 14, 8285 2
- 321 A Comparative Review of Lead-Acid, Lithium-Ion and Ultra-Capacitor Technologies and Their Degradation Mechanisms. **2022**, 15, 4930
- 320 Review Understanding and Controlling Charge Functions in Materials for Electrochemically Mediated Water Treatment.
- 319 Intercalation optimized hexagonal boron nitride nanosheets for high efficiency hydrogen storage. **2022**, 154118
- 318 Fast-Charging Strategies for Lithium-Ion Batteries: Advances and Perspectives. 0
- 317 The applications of Internet of Things in the automotive industry: a review of the batteries, fuel cells, and engines. **2022**, 100579 3
- 316 In situ visualization of multicomponents coevolution in a battery pouch cell. **2022**, 119, 0
- 315 3D crumpled Ti₃C₂T_x-xerogel architectures for optimized lithium storage. **2022**, 140857 1
- 314 Enhancing Electrochemical Performance of Co(OH)₂ Anode Materials by Introducing Graphene for Next-Generation Li-ion Batteries. **2022**, 13, 398-406
- 313 SiO_x@Si-graphite microspheres for high-stable anode of lithium-ion batteries. **2022**, 426, 140795 0
- 312 A promising silicon/carbon xerogel composite for high-rate and high-capacity lithium-ion batteries. **2022**, 426, 140790 1
- 311 An efficient cold start strategy for proton exchange membrane fuel cell stacks. **2022**, 542, 231492 1
- 310 Enhanced cycle performance and synthesis of LiNi_{0.6}Co_{0.2}Mn_{0.2}O₂ single-crystal through the assist of Ba ion. **2022**, 542, 231784 0

309	Wireless charging systems for electric vehicles. 2022 , 167, 112730	3
308	Creating a circular EV battery value chain: End-of-life strategies and future perspective. 2022 , 185, 106484	4
307	Construction of V1.11S2 flower spheres for efficient aqueous Zn-ion batteries. 2022 , 625, 1002-1011	0
306	Environmental Impact Assessment of LiNi _{1/3} Mn _{1/3} Co _{1/3} O ₂ Hydrometallurgical Cathode Recycling from Spent Lithium-Ion Batteries.	1
305	Facet Strain Strategy of Atomically Dispersed Fe ₂ N ₂ C Catalyst for Efficient Oxygen Electrocatalysis. 2206081	0
304	Study the thermal management of Li-ion batteries using looped heat pipes with different nanofluids. 2022 , 102227	1
303	A Two-Stage Interleaved Bridgeless SEPIC based PFC Converter for Electric Vehicle Charging Application. 2022 ,	
302	The second life of coffee can be even more energizing: Circularity of materials for bio-based electrochemical energy storage devices.	
301	Soft-template assisted preparation of hierarchically porous graphitic carbon nitride layers for high-performance supercapacitors.	0
300	Hierarchical Heterostructure Engineering of Layered Double Hydroxides on Nickel Sulfides Heteronanowire Arrays as Efficient Cathode for Alkaline Aqueous Zinc Batteries. 2022 , 18, 2202799	0
299	Theoretical Study on the High HER/OER Electrocatalytic Activities of 2D GeSi, SnSi, and SnGe Monolayers and Further Improvement by Imposing Biaxial Strain or Doping Heteroatoms. 2022 , 27, 5092	0
298	Role of Electronic Passivation in Stabilizing the Lithium- Li _x PO _y N _z Solid-Electrolyte Interphase. 2022 , 1,	0
297	A Techno-Economic Model for Benchmarking the Production Cost of Lithium-Ion Battery Cells. 2022 , 8, 83	0
296	A Review of the Impact of Battery Degradation on Energy Management Systems with a Special Emphasis on Electric Vehicles. 2022 , 15, 5889	1
295	Monodispersed FeS ₂ Electrocatalyst Anchored to Nitrogen-Doped Carbon Host for Lithium Sulfur Batteries. 2205471	2
294	Electric Vehicle Traction Drives and Charging Station Power Electronics: Current Status and Challenges. 2022 , 15, 6037	2
293	A Strategy for Preparing Solid Polymer Electrolytes Containing In Situ Synthesized ZnO Nanoparticles with Excellent Electrochemical Performance. 2022 , 12, 2680	
292	A Ceramic Rich Quaternary Composite Solid-State Electrolyte for Solid-State Lithium Metal Batteries. 2022 , 169, 080510	

291	Polysulfide Speciation in Li-S Battery Electrolyte via In-Operando Optical Imaging and Ex-Situ UV-vis Spectra Analysis.	
290	Automation and connectivity of electric vehicles: Energy boon or bane?. 2022 , 3, 101002	1
289	Strategies for Modulating the Catalytic Activity and Selectivity of Manganese Antimonates for the Oxygen Reduction Reaction. 10826-10840	2
288	Surface spinel reconstruction to suppress detrimental phase transition for stable LiNi _{0.8} Co _{0.1} Mn _{0.1} O ₂ cathodes.	0
287	Copper Hexacyanoferrate Solid-State Electrolyte Protection Layer on Zn Metal Anode for High-Performance Aqueous Zinc-Ion Batteries. 2203061	2
286	Impact of Accelerated Stress Tests on the Cathodic Catalytic Layer in a Proton Exchange Membrane (PEM) Fuel Cell Studied by Identical Location Scanning Electron Microscopy.	2
285	Theoretical Progress of 2D Six-Membered-Ring Inorganic Materials as Anodes for Non-Lithium-Ion Batteries. 2107868	0
284	Advances in Zinc and Magnesium Battery Polymer Cathode Materials.	
283	Will lithium-sulfur batteries be the next beyond-lithium ion batteries and even much better?.	1
282	High-potential control for durability improvement of the vehicle fuel cell system based on oxygen partial pressure regulation under low-load conditions. 2022 ,	
281	A comprehensive state-of-the-art review of electrochemical battery storage systems for power grids.	1
280	Study on hydrogen dispersion in confined space with complex air supply and exhaust system. 2022 , 47, 29131-29147	0
279	Quantitative comparison of different approaches for reconstructing the carbon-binder domain from tomographic image data of cathodes in lithium-ion batteries and its influence on electrochemical properties.	0
278	Understanding the discontinuance trend of hydrogen fuel cell vehicles in Japan. 2022 ,	0
277	Zirconia-supported Cobalt Nanoparticles as High-performance Sulfur Cathode for Lithium-sulfur Batteries.	
276	Dual-Scale Integration Design of Sn/ZnO Catalyst toward Efficient and Stable CO ₂ Electroreduction. 2204637	7
275	Recent Developments and Research Avenues for Polymers in Electric Vehicles.	1
274	Tug-of-War in the Selection of Materials for Battery Technologies. 2022 , 8, 105	0

- 273 Processing of lithium metal for the production of post-lithium-ion batteries using a pulsed nanosecond fiber laser. **2022**, 15, 100305 0
- 272 Interfacial engineering on metal anodes in rechargeable batteries. **2022**, 4, 100089
- 271 Impact of Pt spatial distribution on the relative humidity tolerance of Pt/C catalysts for fuel cell applications. **2022**, 545, 231906
- 270 Co-Nx-enriched porous carbon nanofibers as efficient oxygen electrocatalyst for flexible Zn-air batteries. **2022**, 544, 231865 2
- 269 Physics-based, reduced order degradation model of lithium-ion batteries. **2022**, 545, 231900
- 268 Isolation anchoring strategy for in situ synthesis of iron single-atom catalysts towards long-term rechargeable zinc-air battery. **2022**, 199, 387-394 2
- 267 Unexpected pressure effects on sulfide-based polymer-in-ceramic solid electrolytes for all-solid-state batteries. **2022**, 102, 107679 1
- 266 In situ synthesis of a self-supported MnO₂-based cathode for high-performance zinc-ion batteries by K⁺ pre-intercalation. **2022**, 604, 154578 2
- 265 In-situ generating highly efficient sites for multifunctional water splitting/Zn-air battery over hierarchically architected Fe₂Ni₃ nanoalloy/N-incorporated carbon matrix. **2022**, 450, 138245 3
- 264 State of charge estimation for lithium-ion batteries under varying temperature conditions based on adaptive dual extended Kalman filter. **2022**, 213, 108751 0
- 263 Hydrothermally Grown Dual-Phase Heterogeneous Electrocatalysts for Highly Efficient Rechargeable Metal-Air Batteries with Long-Term Stability. 2203663 0
- 262 Fabrication of Lithium Indolide and Derivates for Ion Conduction. **2022**, 14, 41095-41102 0
- 261 Removal of car battery heavy metals from wastewater by activated carbons: a brief review. 0
- 260 Full-scale three-dimensional simulation of air-cooled proton exchange membrane fuel cell stack: Temperature spatial variation and comprehensive validation. **2022**, 270, 116211 3
- 259 Multiple effects of non-uniform channel width along the cathode flow direction based on a single PEM fuel cell: An experimental investigation. **2022**, 549, 232080 0
- 258 Exploring the role of environmental regulations in the production and diffusion of electric vehicles. **2022**, 173, 108675 0
- 257 Durability estimation and short-term voltage degradation forecasting of vehicle PEMFC system: Development and evaluation of machine learning models. **2022**, 326, 119975 0
- 256 Tailored defects for metal-free nitrogen-doped carbons toward efficient oxygen reduction reaction using tripolycyanamide-based microporous polymer as precursor. **2022**, 433, 141205 0

255	Integrating LiF-rich solid electrolyte interphase and in-situ formed gel blocking layer for LiS battery. 2022 , 548, 232035	0
254	Liquid-based battery thermal management system performance improvement with intersected serpentine channels. 2022 , 199, 640-652	1
253	Structural evolution and electrochemical hydrogen storage properties of single-phase A5B19-type (La _{0.33} Y _{0.67}) ₅ Ni _{17.6} Mn _{0.9} Al _{0.5} alloy. 2022 , 548, 232039	0
252	Future greenhouse gas emissions of automotive lithium-ion battery cell production. 2022 , 187, 106606	0
251	Integrating transition metal into silicon/carbon anodes towards enhanced lithium storage. 2022 , 927, 167085	1
250	Hydrogen passivated 12-borophene nanoribbon: A propitious one-dimensional metallic anode for sodium-ion rechargeable batteries. 2022 , 606, 154825	0
249	Battery degradation diagnosis with field data, impedance-based modeling and artificial intelligence. 2022 , 53, 391-403	4
248	Introduction. 2022 , 1-13	0
247	Two-dimensional metallic VTe ₂ demonstrating fast ion diffusion for aqueous zinc-ion batteries.	1
246	Biopolymer-based Electrospun Fibers in Electrochemical Devices: Versatile Platform for Energy, Environment, and Health Monitoring.	2
245	State of Health Estimation and Remaining Useful Life Prediction of Electric Vehicles Based on Real-World Driving and Charging Data. 2022 , 1-13	0
244	An anodeless, mechanically flexible and energy/power dense sodium battery prototype.	1
243	Effect of wind turbine designed for electric vehicles on aerodynamics and energy performance of the vehicle. 2022 , 26, 2907-2917	0
242	Direct recovery of scrapped LiFePO ₄ by a green and low-cost electrochemical re-lithiation method. 2022 , 24, 6278-6286	0
241	Chatter-free Non-Singular Fast Terminal Sliding Mode Control of Interleaved Boost Converter. 2022 , 1-1	0
240	Experimental Study on the Droplet Transport and Dynamic Behavior in Pem Fuel Cell Flow Channel with Micro-Protrusions.	0
239	Doping of the Mn vacancy of Mn ₂ B ₂ with a single different transition metal atom as the dual-function electrocatalyst. 2022 , 24, 20988-20997	1
238	High-rate electrochemical lithium-ion storage through Li ⁺ intercalation pseudocapacitance in Pr _{1/3} NbO ₃ anode.	0

- 237 Recent development and challenges in fuel cells and water electrolyzer reactions: an overview. **2022**, 12, 28227-28244 0
- 236 Structure Design for Ultrahigh Power Density Proton Exchange Membrane Fuel Cell. 0
- 235 Mathematical model based on staircase structure for porous electrode impedance. **2022**, 24, 21863-21871 0
- 234 Wireless Power Transfer Disc Coil for Electric Vehicle. **2022**, 0
- 233 First Hydrogen Fuel Sampling from a Fuel Cell Hydrogen Electrical Vehicle Validation of Hydrogen Fuel Sampling System to Investigate FCEV Performance. **2022**, 10, 1709 0
- 232 Solvent-Free Fabrication of Thick Electrodes in Thermoplastic Binders for High Energy Density Lithium-Ion Batteries. **2022**, 12, 3320 0
- 231 Machine learning accelerated carbon neutrality research using big data from predictive models to interatomic potentials. 0
- 230 Tailoring the Void Space of a Silicon Anode for High-Capacity and Low-Expansion Lithium Storage. 2200236 0
- 229 Room-Temperature Oxygen Transport in Nanoscale BixOySez Enables Precision Modulation of 2D Materials. **2022**, 16, 13969-13981 0
- 228 Comparison of Oxygen Adsorption and Platinum dissolution in acid and alkaline solutions using electrochemical quartz crystal microbalance. 0
- 227 Random Copolymer Hydrogel as Elastic Binder for the SiOx Microparticle Anode in Lithium-Ion Batteries. **2022**, 14, 42494-42503 0
- 226 Green hydrogen production: Analysis for different single or combined large-scale photovoltaic and wind renewable systems. **2022**, 4
- 225 The Role of Separator Thermal Stability in Safety Characteristics of Lithium-ion Batteries. **2022**, 169, 090521 0
- 224 Electric Vehicle Cost in 2035: The impact of market penetration and charging strategies. **2022**, 106263 0
- 223 Smart Manufacturing Processes of Low-Tortuous Structures for High-Rate Electrochemical Energy Storage Devices. **2022**, 13, 1534 0
- 222 Serrated lithium fluoride nanofibers-woven interlayer enables uniform lithium deposition for lithium metal batteries. 2
- 221 Recent advance in MXenes: New horizons in electrocatalysis and environmental remediation technologies. **2022**, 100370 1
- 220 Continuous CO₂ electrolysis using a CO₂ exsolution-induced flow cell. 1

219	Constructing Stable Anion-Tuned Electrode/Electrolyte Interphase on High-Voltage Na ₃ V ₂ (PO ₄) ₂ F ₃ Cathode for Thermally-Modulated Fast-Charging Batteries.	0
218	Cobalt-Doped Spinel Cathode for High-Power Lithium-Ion Batteries Toward Expanded Low-Temperature Applications.	1
217	Role of Morphology of Platinum-Based Nanoclusters in ORR/OER Activity for Nonaqueous Li-Air Battery Applications.	0
216	Understanding voltage hysteresis and decay during anionic redox reaction in layered transition metal oxide cathodes: A critical review.	0
215	Toward a Hydrogen Economy: Development of Heterogeneous Catalysts for Chemical Hydrogen Storage and Release Reactions. 3734-3752	2
214	Constructing Stable Anion-Tuned Electrode/Electrolyte Interphase on High-Voltage Na ₃ V ₂ (PO ₄) ₂ F ₃ Cathode for Thermally-Modulated Fast-Charging Batteries.	0
213	Co ₃ O ₄ @MWCNT modified separators for Li-S batteries with improved cycling performance. 2022 , 101163	1
212	Roadblocks to fuel-cell electric vehicle diffusion: Evidence from Germany, Japan and California. 2022 , 112, 103458	1
211	Examining influence factors of Chinese electric vehicle market demand based on online reviews under moderating effect of subsidy policy. 2022 , 326, 120019	2
210	A CNN-ABC model for estimation and optimization of heat generation rate and voltage distributions of lithium-ion batteries for electric vehicles. 2022 , 199, 123486	7
209	Recent major advances and challenges in the emerging Graphene based nanomaterials in electrocatalytic Fuel Cell technology.	0
208	Biomass-Derived Materials for Lithium Secondary Batteries. 2022 , 1-7	0
207	Keeping Superprotonic Conductivity over a Wide Temperature Region via Sulfate Hopping Sites-Decorated Zirconium-Oxo Clusters. 2205444	0
206	Biomass-Derived Porous Carbon with a Good Balance between High Specific Surface Area and Mesopore Volume for Supercapacitors. 2022 , 12, 3804	0
205	Impact of Transportation Electrification on the Electricity Grid. A Review. 2022 , 4, 1042-1079	1
204	First-Principles Study on the Electrocatalytic Oxygen Evolution Reaction on the (110) Surfaces of Layered Double Hydroxides. 2022 , 126, 18351-18365	0
203	Introduction to Zinc-Air Batteries. 2022 , 1-34	0
202	Improving performances of oxide solid electrolytes by a magnetic field for all-solid-state lithium-metal batteries. 2022 , 121, 173903	1

201	An Energy-Dense and High-Power Li-Cl ₂ Battery by Reversible Interhalogen Bonds.	0
200	Thermal-Hydraulic Characteristics of the Liquid-Based Battery Thermal Management System with Intersected Serpentine Channels. 2022 , 14, 3148	0
199	Blue and green hydrogen energy to meet European Union decarbonisation objectives. An overview of perspectives and the current state of affairs. 2022 ,	0
198	Defect-Induced Dense Amorphous/Crystalline Heterophase Enables High-Rate and Ultrastable Sodium Storage. 2205575	4
197	Aqueous Rechargeable Sodium-Ion Batteries: From Liquid to Hydrogel. 2022 , 8, 180	0
196	The Effects of Phosphate Impurity on Recovered LiNi _{0.6} Co _{0.2} Mn _{0.2} O ₂ Cathode Material via a Hydrometallurgy Method. 2022 , 14, 48627-48635	0
195	How to Promote the Industrial Application of SiO _x Anode Prelithiation: Capability, Accuracy, Stability, Uniformity, Cost, and Safety. 2202342	1
194	Microstructure and surface engineering through indium modification on Ni-rich layered cathode materials for enhanced electrochemical performance of lithium-ion batteries. 2022 , 167862	0
193	Rational design of advanced oxygen electrocatalysts for high-performance zinc-air batteries. 2022 ,	0
192	State of charge estimation for lithium-ion batteries based on improved barnacle mating optimizer and support vector machine. 2022 , 55, 105830	0
191	Engineering strong electronegative nitrogen-rich porous organic polymer for practical durable lithium-sulfur battery. 2022 , 551, 232212	0
190	Irreversible oxidation of hydroxide ion in the light of negative capacitance by fast scan voltammetry. 2022 , 926, 116919	0
189	Online energy management strategy considering fuel cell fault for multi-stack fuel cell hybrid vehicle based on multi-agent reinforcement learning. 2022 , 328, 120234	0
188	Dual-atom catalysts for oxygen electrocatalysis. 2022 , 104, 107927	1
187	First-principles study on selenium-doped Li ₁₀ GeP ₂ S ₁₂ solid electrolyte: Effects of doping on moisture stability and Li-ion transport properties. 2022 , 26, 101223	0
186	Exploring the potential of natural pyrrhotite mineral for electrochemical energy storage. 2023 , 54, 421-429	0
185	Optimal design for improving operation performance of electric construction machinery collaborative system: Method and application. 2023 , 263, 125629	0
184	Sandwich structured ultra-strong-heat-shielding aerogel/copper composite insulation board for safe lithium-ion batteries modules. 2023 , 76, 438-447	0

- 183 Highly stable and active Pt-skinned octahedral PtCu/C for oxygen reduction reaction. **2023**, 656, 130341 ○
- 182 Tailoring MOF structure via ligand optimization achieved dandelion flower like CoS/Co-Nx/CoNi/NiS catalyst to enhance ORR/OER for zinc-air batteries. ○
- 181 Effect of membrane mechanics on AEM fuel cell performance. ○
- 180 Cell Selection Based on Chemistry and Key Parameters for Electric Vehicle. **2021**, ○
- 179 Heat-Resistant, Robust, and Hydrophilic Separators Based on Regenerated Cellulose for Advanced Supercapacitors. 2205152 ○
- 178 Unlocking Charge Transfer Limitations for Extreme Fast Charging of Li-Ion Batteries. ○
- 177 Clean energy technology pathways from research to commercialization: Policy and practice case studies. 10, ○
- 176 Transmission Electron Microscopy Observation of the Fuel Cell Catalyst Degradation during the Oxygen Reduction Reaction. 420, 91-100 ○
- 175 Progress and perspectives of space charge limited current models in all-solid-state batteries. ○
- 174 Operation Range Enhancement for Alkaline Electrolysers Driven by Renewable Energy Sources. ○
- 173 The path toward practical Li-air batteries. **2022**, 6, 2458-2473 1
- 172 Exploration of NaSICON Frameworks as Calcium-Ion Battery Electrodes. ○
- 171 Modeling the impact of nickel recycling from batteries on nickel demand during vehicle electrification in China from 2010 to 2050. **2022**, 159964 ○
- 170 Revealing the interfacial phenomenon of metal-hydride formation and spillover effect on C48H16 sheet by platinum metal catalyst (Pt (n=1-4)) for hydrogen storage enhancement. **2022**, ○
- 169 One-step Electrochemical Synthesis and Optimization of Sb-Co-P Alloy Anode for Sodium Ion Battery. **2022**, 141529 ○
- 168 Development of design strategies for conjugated polymer binders in lithium-ion batteries. ○
- 167 Unlocking Charge Transfer Limitations for Extreme Fast Charging of Li-Ion Batteries. ○
- 166 Zeolitic imidazolate framework-67 derived cobalt-based catalysts for water splitting. **2022**, 26, 101210 ○

165	A low-carbon strategy for revival of degraded single crystal LiNi _{0.6} Co _{0.2} Mn _{0.2} O ₂ .	0
164	Accommodation of Two-Dimensional SiO _x in a Point-to-Plane Conductive Network Composed of Graphene and Nitrogen-Doped Carbon for Robust Lithium Storage.	0
163	Understanding the charging of supercapacitors by electrochemical quartz crystal microbalance.	0
162	Modelling the interaction between the energy system and road freight in Norway. 2023 , 114, 103569	0
161	A robust solvothermal-driven solid-to-solid transition route from micron SnC ₂ O ₄ to tartaric acid-capped nano-SnO ₂ anchored on graphene for superior lithium and sodium storage. 2022 , 11, 53-67	0
160	Surface iodine modification inducing robust CEI enables ultra-stable Li-Se batteries. 2023 , 455, 140803	0
159	Chemistry/mechanics/geometry coupling in positive electrode materials: a scale-bridging perspective for mitigating degradation in lithium-ion batteries through materials design.	1
158	Cold start degradation of proton exchange membrane fuel cell: Dynamic and mechanism. 2023 , 455, 140823	0
157	A semi-fluid multi-functional binder for a high-performance silicon anode of lithium-ion batteries.	1
156	Mechanism of inhomogeneous deformation and equal-stiffness design of large-format prismatic lithium-ion batteries. 2023 , 332, 120494	0
155	High-performance zinc-air batteries enabled by hybridizing atomically dispersed FeN ₂ with Co ₃ O ₄ nanoparticles.	1
154	Cellulose-based gel-type electrolyte fabricated by lyophilization to enable uniform Li ⁺ ion flux distribution for stable Li metal anodes with high-rate capability. 2023 , 30, 101705	0
153	Critical metal requirement for clean energy transition: A quantitative review on the case of transportation electrification. 2023 , 9, 100116	0
152	A module-level charging optimization method of lithium-ion battery considering temperature gradient effect of liquid cooling and charging time. 2023 , 265, 126331	1
151	Robust model-predictive thermal control of lithium-ion batteries under drive cycle uncertainty. 2023 , 557, 232496	0
150	Cost, range anxiety and future electricity supply: A review of how today's technology trends may influence the future uptake of BEVs. 2023 , 173, 113074	3
149	Digital twin application in energy storage: Trends and challenges. 2023 , 58, 106347	0
148	Mesoporous waffle-like N-doped carbon with embedded Co nanoparticles for efficiently electrocatalytic oxygen reduction and evolution. 2023 , 633, 374-382	0

- 147 Hierarchical meso-micro porous Fe N C derived from tripolycyanamide-based microporous polymer as efficient electrocatalyst for oxygen reduction reaction. **2023**, 633, 265-274 0
- 146 Boosting Sodium-Ion Storage via the Thermodynamic- and Dynamic-Induced Bidirectional Interfacial Electric Field in the ZnS/Sn₂S₃ Heterostructure Anode. **2022**, 36, 14423-14432 0
- 145 Electroshock synthesis of a bifunctional nonprecious multi-element alloy for alkaline hydrogen oxidation and evolution. **2022**, 2, 20220024 1
- 144 Atomic Layer Deposition for Electrochemical Energy: from Design to Industrialization. **2022**, 5, 0
- 143 Porous Proton Exchange Membrane with High Stability and Low Hydrogen Permeability Realized by Dense Double Skin Layers Constructed with Amino tris (methylene phosphonic acid). 2210036 0
- 142 Ultrathin Solid Polymer Electrolyte Design for High-Performance Li Metal Batteries: A Perspective of Synthetic Chemistry. 2205233 2
- 141 Fullerenes and derivatives as electrocatalysts: Promises and challenges. **2022**, 0
- 140 Steering Carbon Hybridization State in Carbon-Based Metal-free Catalysts for Selective and Durable CO₂ Electroreduction. **2022**, 12, 15218-15229 0
- 139 Towards Sustainable Fuel Cells and Batteries with an AI Perspective. **2022**, 14, 16001 1
- 138 Bulk Oxygen Stabilization via Electrode-Electrolyte Interphase Tailored Surface Activities of Li-Rich Cathodes. 2202929 1
- 137 Surface Anion Promotes Pt Electrocatalysts with High CO Tolerance in Fuel-Cell Performance. **2022**, 144, 22018-22025 0
- 136 Tuning the Hydrophobic Component in Reinforced Poly(arylimidazolium)-Based Anion Exchange Membranes for Alkaline Fuel Cells. **2022**, 5, 15211-15221 0
- 135 Insights into Electrolytic Pre-Lithiation: A Thorough Analysis Using Silicon Thin Film Anodes. 2206092 0
- 134 Preparation and lithium storage of anthracite-based graphite anode materials. **2022**, 37, 1163-1169 0
- 133 The emerging coupled low-PGM and PGM-free catalysts for oxygen reduction reaction. **2022**, 100484 0
- 132 Blocking Directional Lithium Diffusion in Solid-State Electrolytes at the Interface: First-Principles Insights into the Impact of the Space Charge Layer. **2022**, 14, 55471-55479 0
- 131 Lithium-metal free sulphur battery based on waste biomass anode and nano-sized Li₂S cathode. 0
- 130 Analysis of the Future of Mobility: The Battery Electric Vehicle Seems Just a Transitory Alternative. **2022**, 15, 9149 1

129	Cathode Electrolyte Interphase-Forming Additive for Improving Cycling Performance and Thermal Stability of Ni-Rich $\text{LiNi}_x\text{Co}_y\text{Mn}_{1-x-y}\text{O}_2$ Cathode Materials. 2022 , 14, 54688-54697	1
128	Electric Field-Driven Ultraefficient $\text{Li}^+/\text{Mg}^{2+}$ Separation through Graphyne Membrane. 2022 , 61, 18080-18089	1
127	Factors affecting the market dynamics of lithium-ion battery for electric mobility: a system dynamics perspective. 1-18	0
126	Achieving High-Performance Si Nanoparticles-Embedded Carbon Fiber Film Anodes in Lithium-Ion Batteries Through Low Current Activation.	0
125	(In)Coherent-bond-networks in Ni-rich layered oxides for durable lithium-ion batteries. 2023 , 141472	0
124	Demand-driven NEV supplier selection: An integrated method based on ontology. 2023 , 10, 1-10	0
123	SOC-Based Fast and Stable Charging Control Using Multilevel DC-DC Buck Converter for EVs. 1-15	1
122	Ultra-High-Capacity Lithium Metal Batteries Based on Multi-Electron Redox Reaction of Organopolysulfides including Conductive Organic Moieties. 2023 , 15, 335	0
121	Engineering the electronic structure of Fe-N/C catalyst via fluorine self-doping for enhanced oxygen reduction reaction in liquid and all-solid-state Zn-air batteries. 2023 , 141907	0
120	Preparation of Hollow Nanostructured Si Spheres by Zincothermic Reduction of SiO_2 to Si for Lithium-Ion Batteries. 2023 , 6, 502-511	0
119	Ordered mesoporous carbon fiber bundles with high-density and accessible Fe-NX active sites as efficient ORR catalysts for Zn-air batteries. 2023 , 108142	0
118	Structure Design for Ultrahigh Power Density Proton Exchange Membrane Fuel Cell. 2201537	1
117	Selecting the Optimal Fluorinated Ether Co-Solvent for Lithium Metal Batteries. 2023 , 15, 2804-2811	0
116	Strong precious metal-metal oxide interaction for oxygen reduction reaction: A strategy for efficient catalyst design.	0
115	SiO_2 -induced thermal instability and interplay between graphite and SiO_2 in graphite/ SiO_2 composite anode. 2023 , 14,	1
114	The Extraction of Nickel and Cobalt from Laterite Ores with Concurrent Carbon Sequestration. 2023 , 797-809	0
113	Electrochemical Characterization of Degradation Modes of High-Voltage $\text{Li}_x\text{Ni}_{0.33}\text{Mn}_{0.33}\text{Co}_{0.33}\text{O}_2$ Electrodes. 917-926	0
112	Stable cycling of Si nanowire electrodes in fluorine-free cyano-based ionic liquid electrolytes enabled by vinylene carbonate as SEI-forming additive. 2023 , 558, 232621	0

111	Numerical modeling and performance analysis of an acid-alkaline aluminum-air cell. 2023 , 440, 141729	0
110	Strategies towards a more sustainable aviation: A systematic review. 2023 , 137, 100878	2
109	Li ₂ Se as cathode additive to prolong the next generation high energy lithium-ion batteries. 2023 , 36, 102610	0
108	LSCF perovskite oxide in situ grown on reduced graphene oxide as high-performance bifunctional catalyst for zinc-air battery. 2023 , 132, 109668	0
107	Molten-salt confined synthesis of nitrogen-doped carbon nanosheets supported Co ₃ O ₄ nanoparticles as a superior oxygen electrocatalyst for rechargeable Zn-air battery. 2023 , 560, 232692	0
106	Fast and reliable calibration of thermal-physical model of lithium-ion battery: a sensitivity-based method. 2023 , 59, 106435	0
105	Techno-economic analysis of different shades of renewable and non-renewable energy-based hydrogen for fuel cell electric vehicles. 2023 , 174, 113153	1
104	Constructing stable interface layer for boosting high-voltage cycling performance of single-crystal Ni-rich cathodes. 2023 , 559, 232653	0
103	Insights on the degradation mechanism for large format prismatic graphite/LiFePO ₄ battery cycled under elevated temperature. 2023 , 60, 106624	0
102	Surface engineered hollow Ni-Co-P@TiO ₂ -nanopolyhedrons as high performance anode material for sodium storage. 2023 , 635, 265-272	0
101	Alternative fuels to reduce greenhouse gas emissions from marine transport and promote UN sustainable development goals. 2023 , 338, 127220	0
100	A Perspective of the Energy Transition in Panama focused on Distributed Generation and Electric Vehicles on the Demand-Side. 2022 ,	0
99	Cobalt metal-organic framework derived cobalt-nitrogen-carbon material for overall water splitting and supercapacitor. 2022 ,	0
98	Porous Flow Field for Next-Generation Proton Exchange Membrane Fuel Cells: Materials, Characterization, Design, and Challenges.	2
97	Liquid water transport in gas flow channels of PEMFCs: A review on numerical simulations and visualization experiments. 2022 ,	1
96	A Highly Ion-Conductive Solid Polymer Electrolyte with Good Thermal Stability and Non-flammability for All-Solid-State Li Metal Batteries.	0
95	Crystallographic Insight of Reduced Lattice Volume Expansion in Mesoporous Cu ²⁺ -Doped TiNb ₂ O ₇ Microspheres during Li ⁺ Insertion. 2212854	1
94	Memory Effect of MgAl Layered Double Hydroxides Promotes LiNO ₃ Dissolution for Stable Lithium Metal Anode. 2203830	0

- 93 Historical perspective of electrochemical energy storage devices. **2023**, 17-38 ○
- 92 Pd-based Nanocatalysts for Oxygen Reduction Reaction: Preparation, Performance, and in-Situ Characterization. **2023**, 100021 ○
- 91 Spatial confinement of silver nanoparticles in nitrogen-doped carbon framework with high catalytic activity and long-term cycling. 10, ○
- 90 Insight into the Anchoring Effect of Two-Dimensional TiX_2 ($X = S, Se$) Materials for Sodium Sulfur Batteries: A First-Principles Study. 2200714 ○
- 89 CO₂ Mineralization and Critical Battery Metals Recovery from Olivine and Nickel Laterites. **2023**, 63-74 ○
- 88 Hollow-Particles Quasi-Solid-State Electrolytes with Biomimetic Ion Channels for High-Performance Lithium-Metal Batteries. 2206655 1
- 87 The carbon neutrality feasibility of worldwide and in China's transportation sector by E-car and renewable energy sources before 2060. **2023**, 61, 106696 1
- 86 Optimal Utilization of Charging Resources of Fast Charging Station with Opportunistic Electric Vehicle Users. **2023**, 9, 140 1
- 85 Hydrogen Promotes the Growth of Platinum Pyramidal Nanocrystals by Size-Dependent Symmetry Breaking. **2023**, 23, 2644-2650 ○
- 84 Impacts of wind conditions on hydrogen leakage during refilling hydrogen-powered vehicles. **2023**, ○
- 83 Strength, weakness, opportunities, and threats (SWOT) analysis of fuel cells in electric vehicles. **2023**, ○
- 82 Analysis of Differences in Electrochemical Performance Between Coin and Pouch Cells for Lithium-Ion Battery Applications. ○
- 81 Image-based 3D characterization and reconstruction of heterogeneous battery electrode microstructure. **2023**, 223, 112139 ○
- 80 Carbon-Free, Binder-Free $MnO_2@Mn$ Catalyst for Oxygen Reduction Reaction. ○
- 79 Passenger transport decarbonization in emerging economies: policy lessons from modelling long-term deep decarbonization pathways. 1-21 ○
- 78 Manipulating active sites on carbon nanotube materials for highly efficient hydrogen storage. **2023**, 619, 156740 ○
- 77 Boosting the electrochemical performance of Zn-air battery with N/O co-doped biochar catalyst via a simple physical strategy of forced convection intensity. **2023**, 272, 118615 ○
- 76 Coordination strategy to prepare high-performance Fe-N_x catalysts for Al-air batteries. **2023**, 567, 232988 ○

- 75 Multifunctional separators for lithium secondary batteries via in-situ surface modification of hydrophobic separator using aqueous binders. **2023**, 38, 102828 ○
- 74 Descriptor-Based Graded Electrode Microstructures Design Strategies of Lithium-Ion Batteries for Enhanced Rate Performance. **2023**, 9, 227 ○
- 73 Ag nanoparticle-loaded to MnO₂ with rich oxygen vacancies and Mn³⁺ for the synergistically enhanced oxygen reduction reaction. **2023**, ○
- 72 In-situ cross-linked multifunctional polymer electrolyte buffer layers for high-performance garnet solid-state lithium metal batteries. **2023**, 641, 470-478 ○
- 71 Process intensification for decentralized production. **2023**, 184, 109291 ○
- 70 A Ni-MOF derived graphene oxide combined Ni₃S₂/Ni/C composite and its use in the separator coating for lithium sulfur batteries. **2023**, 25, 5559-5568 ○
- 69 Study on internal dynamic response during cold start of proton exchange membrane fuel cell with parallel and serpentine flow fields. **2023**, 561, 232609 ○
- 68 Alkaline Hydrogen Oxidation Reaction Catalysts: Insight into Catalytic Mechanisms, Classification, Activity Regulation and Challenges. **2023**, 4, ○
- 67 Deep eutectic solvent electrolytes based on trifluoroacetamide and LiPF₆ for Li-metal batteries. **2023**, 561, 232746 ○
- 66 In Situ Preparation of High-Performance Silicon-Based Integrated Electrodes Using Cross-Linked Cyclodextrins. **2023**, 8, 5683-5691 ○
- 65 Layering Charged Polymers Enable Highly Integrated High-Capacity Battery Anodes. 2213458 ○
- 64 Accelerated CO₂ mineralization and utilization for selective battery metals recovery from olivine and laterites. **2023**, 393, 136345 ○
- 63 Three-Dimensional Simulation on the Effects of Different Parameters and Pt Loading on the Long-Term Performance of Proton Exchange Membrane Fuel Cells. **2023**, 15, 2902 ○
- 62 Construction of Lithium Metal Anode with High Lithium Utilization and its Application in Lithium-Sulfur Batteries. **2023**, 13, 7-28 ○
- 61 Nitrogen as An Anionic Center/Dopant for Next-Generation High-Performance Lithium/Sodium-Ion Battery Electrodes: Key Scientific Issues, Challenges and Perspectives. 2214786 ○
- 60 A review of all-solid-state electrolytes for lithium batteries: high-voltage cathode materials, solid-state electrolytes and electrode/electrolyte interfaces. **2023**, 7, 1268-1297 ○
- 59 A Mechanistic Overview of the Current Status and Future Challenges of Aluminum Anode and Electrolyte in Aluminum-Air Batteries. ○
- 58 A Review of Renewable Energy and Storage Technologies for Automotive Applications. 10 ○

- 57 Protecting groups in insertion chemistry: Site-selective positioning of lithium ions in intercalation hosts. **2023**, 6, 1125-1139 ○
- 56 Electrochemical Characterization of Charge Storage at Anodes for Sodium-Ion Batteries Based on Corncob Waste-Derived Hard Carbon and Binder. **2023**, 10, ○
- 55 ENERGIETECHNOLOGIE UND NACHHALTIGKEIT. **2023**, 67-140 ○
- 54 Facile synthesis of $\text{TiO}_{1.77}(\text{OH})_{0.46} \cdot 0.2 \text{H}_2\text{O}$ and TiO_2 and their applications for aqueous ammonium-ion battery. **2023**, 29, 1479-1486 ○
- 53 Anhydrous Superprotonic Conductivity in the Zirconium Acid Triphosphate $\text{ZrH}_5(\text{PO}_4)_3$ **. **2023**, 62, ○
- 52 Anhydrous Superprotonic Conductivity in the Zirconium Acid Triphosphate $\text{ZrH}_5(\text{PO}_4)_3$ **. **2023**, 135, ○
- 51 Understanding the impact of fuel cell anode layer thickness and layer design on reversal tolerance. **2023**, 564, 232895 ○
- 50 Recent Progress in the Development of Metallic Composite for Advanced Technologies. **2023**, 53-87 ○
- 49 Timely or early? Breaking away from cobalt-reliant lithium-ion batteries. **2023**, 1, 100004 ○
- 48 In Situ Generation of Pt_2Co_3 Nano-Alloys in Porous N-Doped Carbon for Highly Efficient Electrocatalytic Hydrogen Evolution. ○
- 47 Heterojunction interlocked catalysis-conduction network in monolithic porous-pipe scaffold for enduring Li-S batteries. **2023**, 58, 74-84 ○
- 46 Tailoring Ionomer Chemistry for Improved Oxygen Transport in the Cathode Catalyst Layer of Proton Exchange Membrane Fuel Cells. **2023**, 6, 3590-3598 ○
- 45 Room-Temperature Rapid Self-Healing Polymer Binders for Si Anodes in Highly Cycling-Stable and Capacity-Maintained Lithium-Ion Batteries. **2023**, 6, 3538-3548 ○
- 44 Constructing mutual-philic electrode/non-liquid electrolyte interfaces in electrochemical energy storage systems: Reasons, progress, and perspectives. **2023**, 58, 48-73 ○
- 43 Toward the Practical and Scalable Fabrication of Sulfide-Based All-Solid-State Batteries: Exploration of Slurry Process and Performance Enhancement Via the Addition of LiClO_4 . 2214274 ○
- 42 Understanding the solvation structures of glyme-based electrolytes by machine learning molecular dynamics. **2023**, 100061 ○
- 41 Recent advances and challenges of cobalt-based materials as air cathodes in rechargeable $\text{Zn}||\text{air}$ batteries. **2023**, 5, 100896 ○
- 40 Designing a membrane electrode assembly for weakly humidity-dependent proton exchange membrane fuel cells. **2023**, 7, 1829-1838 ○

- 39 A Genetic Algorithm for Task Offloading problem in Vehicular Edge Computing. **2022**, ○
- 38 Mesoscale Modeling and Analysis in Electrochemical Energy Systems. **2023**, 69-117 ○
- 37 Tuning Electron Transfer in Atomic-Scale Pt-Supported Catalysts for the Alkaline Hydrogen Oxidation Reaction. **2023**, 62, 5032-5039 ○
- 36 Fuel Cell Products for Sustainable Transportation and Stationary Power Generation: Review on Market Perspective. **2023**, 16, 2748 ○
- 35 Regenerative Braking Applied to a Student Team's Electric Racing Motorcycle Prototype: A Theoretical Study. **2023**, 13, 3784 ○
- 34 Laser patterning and electrochemical characterization of thick-film cathodes for lithium-ion batteries. **2023**, ○
- 33 Achieving high-energy and high-safety lithium metal batteries with high-voltage-stable solid electrolytes. **2023**, 6, 1096-1124 ○
- 32 Polyaniline combining with ultrathin manganese dioxide nanosheets on carbon nanofibers as effective binder-free supercapacitor electrode. **2023**, 450, 142275 1
- 31 Electrospun Cellulose Nanofiber Membranes as Multifunctional Separators for High Energy and Stable Lithium-Sulfur Batteries. **2023**, 2023, 1-17 ○
- 30 Reliability Enhancement of Fast Charging Station under Electric Vehicle Supply Equipment Failures and Repairs. **2023**, 16, 2933 ○
- 29 Scanning Electrochemical Microscopy for Chemical Imaging and Understanding Redox Activities of Battery Materials. ○
- 28 Fundamental investigation on drying rates of cathodes and separators for sulfide-based all-solid-state batteries. 1-7 ○
- 27 Mechanistic Insight into Dual-Metal-Site Catalysts for the Oxygen Reduction Reaction. **2023**, 13, 4992-4999 ○
- 26 Manganese-cobalt oxide as an effective bifunctional cathode for rechargeable Zn-air batteries with a compact quad-cell battery design. ○
- 25 Decoupling the Contributions of Different Instability Mechanisms to the PEMFC Performance Decay of Non-noble Metal O₂-Reduction Catalysts. **2023**, 145, 7845-7858 ○
- 24 Biochar electrode from banana peduncle as heteroatom doped ORR catalyst. **2023**, ○
- 23 Selenium-Doped Sulfurized Poly(acrylonitrile) Composites as Ultrastable and High-Volumetric-Capacity Cathodes for Lithium-Sulfur Batteries. **2023**, 6, 3903-3914 ○
- 22 Fault Prediction Method Based on Improved Bidirectional Long Short-Term Memory Combined with Sample Entropy for Battery. **2023**, ○

- 21 Sandwich self-heating structure-based lithium-ion battery system and its application in the fuel cell bus for Beijing Winter Olympic Games. **2023**, 284, 116977 ○
- 20 Overcoming the Electrode Challenges of High-Temperature Proton Exchange Membrane Fuel Cells. **2023**, 6, ○
- 19 Metal-Organic Framework Based Polymer Fibers: Review on Synthesis and Applications. ○
- 18 Preparation of sulfur vacancy modified NiCo₂S₄@NiCoS₂ core-shell electrode material and its application in asymmetric supercapacitors. **2023**, 454, 142376 ○
- 17 On-Road CO₂ and NO_x Emissions for a Heavy-Duty Truck with Hydrogen-Diesel Co-Combustion. ○
- 16 Lithium-Ion Battery Module Internal Temperature Estimation Based on Rauch-Tung-Striebel Smoothing Technique. ○
- 15 Interfacial Electron Distribution of Co Nanoparticles Supported on N-Doped Mesoporous Hollow Carbon Spheres Endows Highly Efficient ORR, OER, and HER. ○
- 14 Synergistic Tuning of CoO/CoP Heterojunction Nanowire Arrays as Efficient Bifunctional Catalysts for Alkaline Overall Water Splitting. ○
- 13 A Long Cycle Life Zinc-Iodide Flow Battery Enabled by a Multifunctional Low Cost Supporting Electrolyte. ○
- 12 Trade-off between critical metal requirement and transportation decarbonization in automotive electrification. **2023**, 14, ○
- 11 Design and Development of Copper Trimesic Acid Anchored sPEEK/Polyimide Composite Membranes for Fuel Cell Applications. **2023**, 8, ○
- 10 One-Step Solid-State Synthesis of Ni-Rich Cathode Materials for Lithium-Ion Batteries. **2023**, 16, 3079 ○
- 9 LiNi_{0.6}Co_{0.2}Mn_{0.2}O₂ Cathode-Solid Electrolyte Interfacial Behavior Characterization Using Novel Method Adopting Microcavity Electrode. **2023**, 28, 3537 ○
- 8 Self-reconstruction of (CoNiFeCuCr)Se high-entropy selenide for efficient oxygen evolution reaction. **2023**, 157282 ○
- 7 Intrinsic Carbon Structural Imperfections for Enhancing Energy Conversion Electrocatalysts. **2023**, 143060 ○
- 6 A techno-economic analysis of ammonia-fuelled powertrain systems for rail freight. **2023**, 119, 103739 ○
- 5 A Novel Graphene Based Bi-Function Humidity Tolerant Binder for Lithium-Ion Battery. ○
- 4 A systematic review on the current research of digital twin in automotive application. **2023**, ○

- 3 A numerical study of PCM battery thermal management performance enhancement with fin structures. **2023**, 9, 1793-1802
- 2 Tourist preferences for fuel cell vehicle rental: going green with hydrogen on the island of Tenerife. **2023**,
- 1 CO2 utilization by reversible solid oxide cells towards carbon neutralization for long-term energy storage. **2023**, 466, 143275