Electrical energy storage for the grid: a battery of choices

DOI: 10.1126/science.1212741
Science, 2011, 334, 928-35.

#	Paper	IF	Citations
2291	. **2011**,		
2290	Understanding the Factors Affecting the Formation of Carbonyl Iron Electrodes in Rechargeable Alkaline Iron Batteries. **2012**, 159, A2148-A2155		51
2289	Energy supplies and future engines for land, sea, and air. **2012**, 62, 1233-48		6
2288	A High-Performance Rechargeable Iron Electrode for Large-Scale Battery-Based Energy Storage. **2012**, 159, A1209-A1214		106
2287	Hierarchical mesoporous perovskite La0.5Sr0.5CoO2.91 nanowires with ultrahigh capacity for Li-air batteries. **2012**, 109, 19569-74		288
2286	Redox Flow Batteries for large scale energy storage. **2012**,		5
2285	Nanocarbon networks for advanced rechargeable lithium batteries. **2012**, 45, 1759-69		488
2284	Construction and testing of coin cells of lithium ion batteries. **2012**, e4104		4
2283	Diffusion of Lithium in Bulk Amorphous Silicon: A Theoretical Study. **2012**, 116, 22212-22216		138
2282	Pentadecker Supramolecules with a Lithium Alkoxo Nanobelt Sandwiched between Two Highly Charged Buckybowl Surfaces. **2012**, 124, 12360-12364		20
2281	Pentadecker supramolecules with a lithium alkoxo nanobelt sandwiched between two highly charged buckybowl surfaces. **2012**, 51, 12194-8		50
2280	Facile Synthesis and Electrochemical Performance of LiFePO4/C Composites Using FeP Waste Slag. **2012**, 51, 7923-7931		27
2279	High Performance Vanadium Redox Flow Batteries with Optimized Electrode Configuration and Membrane Selection. **2012**, 159, A1246-A1252		157
2278	Reversible 3-Li storage reactions of amorphous phosphorus as high capacity and cycling-stable anodes for Li-ion batteries. **2012**, 48, 8931-3		174
2277	Fe(CN)6-doped polypyrrole: a high-capacity and high-rate cathode material for sodium-ion batteries. **2012**, 2, 5495		56
2276	Delineating local electromigration for nanoscale probing of lithium ion intercalation and extraction by electrochemical strain microscopy. **2012**, 101, 063901		52
2275	Voltage Dependent Charge Storage Modes and Capacity in Subnanometer Pores. **2012**, 3, 1732-7		63

2274	In search of an optimized electrolyte for Na-ion batteries. **2012**, 5, 8572	587
2273	Enhancing Li Ion Conductivity of Garnet-Type Li5La3Nb2O12 by Y- and Li-Codoping: Synthesis, Structure, Chemical Stability, and Transport Properties. **2012**, 116, 20154-20162	75
2272	Nanostructured high-energy cathode materials for advanced lithium batteries. **2012**, 11, 942-7	781
2271	Two-step carbon coating of lithium vanadium phosphate as high-rate cathode for lithium-ion batteries. **2012**, 216, 33-35	25
2270	Synthesis of mesoporous copper oxide microspheres with different surface areas and their lithium storage properties. **2012**, 217, 336-344	39
2269	LiF/Fe nanocomposite as a lithium-rich and high capacity conversion cathode material for Li-ion batteries. **2012**, 217, 54-58	20
2268	Effect of doping LiMn2O4 spinel with a tetravalent species such as Si(IV) versus with a trivalent species such as Ga(III). Electrochemical, magnetic and ESR study. **2012**, 216, 482-488	35
2267	In-situ investigation of vanadium ion transport in redox flow battery. **2012**, 218, 15-20	59
2266	Low-cost shape-control synthesis of porous carbon film on β-alumina ceramics for Na-based battery application. **2012**, 219, 1-8	22
2265	Recent advances in the development of Li–air batteries. **2012**, 220, 253-263	117
2264	Lithiumbatterien und elektrische Doppelschichtkondensatoren: aktuelle Herausforderungen. **2012**, 124, 10134-10166	176
2263	Challenges facing lithium batteries and electrical double-layer capacitors. **2012**, 51, 9994-10024	2149
2262	Anthraquinone with tailored structure for a nonaqueous metal-organic redox flow battery. **2012**, 48, 6669-71	190
2261	Short term energy storage for grid support in wind power applications. **2012**,	10
2260	Enhanced anode performances of polyaniline-TiO2-reduced graphene oxide nanocomposites for lithium ion batteries. **2012**, 51, 9544-51	77
2259	Membranes in lithium ion batteries. **2012**, 2, 367-83	125
2258	Microwave-irradiation synthesis of Li1.3NixCoyMn1−x−yO2.4 cathode materials for lithium ion batteries. **2012**, 80, 15-21	23
2257	Potentiostatic and Galvanostatic Intermittent Titration Techniques. **2012**, 1	11

2256	Formation of SnS nanoflowers for lithium ion batteries. **2012**, 48, 5608-10	151
2255	Evaluating energy storage technologies for wind power integration. **2012**, 86, 2707-2717	105
2254	Synthesis and characterization of a Li-rich layered cathode material Li1.15[(Mn1/3Ni1/3Co1/3)0.5(Ni1/4Mn3/4)0.5]0.85O2 with spherical core□hell structure. **2012**, 22, 19666	50
2253	Tracking lithium transport and electrochemical reactions in nanoparticles. **2012**, 3, 1201	231
2252	Polyprotic acid catholyte for high capacity dual-electrolyte Li-air batteries. **2012**, 14, 12737-40	36
2251	Gassing in Li(4)Ti(5)O(12)-based batteries and its remedy. **2012**, 2, 913	238
2250	Layer-by-layer assembled MoO□graphene thin film as a high-capacity and binder-free anode for lithium-ion batteries. **2012**, 4, 4707-11	121
2249	A Facile and Template-Free Hydrothermal Synthesis of Mn3O4 Nanorods on Graphene Sheets for Supercapacitor Electrodes with Long Cycle Stability. **2012**, 24, 1158-1164	661
2248	N-Doped Graphene-SnO2 Sandwich Paper for High-Performance Lithium-Ion Batteries. **2012**, 22, 2682-2690	479
2247	Organic Electrode Materials for Rechargeable Lithium Batteries. **2012**, 2, 742-769	973
2246	Electrode Materials for Rechargeable Sodium-Ion Batteries: Potential Alternatives to Current Lithium-Ion Batteries. **2012**, 2, 710-721	2590
2245	Li-Redox Flow Batteries Based on Hybrid Electrolytes: At the Cross Road between Li-ion and Redox Flow Batteries. **2012**, 2, 770-779	119
2244	Self-Assembled Nanocomposite of Silicon Nanoparticles Encapsulated in Graphene through Electrostatic Attraction for Lithium-Ion Batteries. **2012**, 2, 1086-1090	401
2243	Disodium Terephthalate (Na2C8H4O4) as High Performance Anode Material for Low-Cost Room-Temperature Sodium-Ion Battery. **2012**, 2, 962-965	437
2242	High-performance lithium-ion anodes with hierarchically assembled single-crystal SnO2 nanoflake spheres. **2012**, 7, 2381-5	10
2241	Facile synthesis of graphene□olybdenum dioxide and its lithium storage properties. **2012**, 22, 16072	51
2240	Mechanical properties of the solid Li-ion conducting electrolyte: Li0.33La0.57TiO3. **2012**, 47, 5970-5977	82
2239	Methanesulfonic acid solution as supporting electrolyte for zinc-vanadium redox battery. **2012**, 65, 179-184	36

2238	Transition-metal chlorides as conversion cathode materials for Li-ion batteries. **2012**, 68, 202-205	41
2237	A Nation-Sized Battery?. **2012**, 45, 263-267	52
2236	Assessment of utility energy storage options for increased renewable energy penetration. **2012**, 16, 4141-4147	382
2235	An aqueous electrolyte, sodium ion functional, large format energy storage device for stationary applications. **2012**, 213, 255-264	117
2234	Metal oxide hollow nanostructures for lithium-ion batteries. **2012**, 24, 1903-11	1327
2233	Polyaniline-carbon nanofiber composite by a chemical grafting approach and its supercapacitor application. **2013**, 5, 8374-86	102
2232	Self-templated synthesis of hollow porous submicron ZnMn2O4 sphere as anode for lithium-ion batteries. **2013**, 559, 5-10	57
2231	Microwave-Induced in situ synthesis of Zn2GeO4/N-doped graphene nanocomposites and their lithium-storage properties. **2013**, 19, 6027-33	79
2230	A stable electrolyte makes a nonaqueous Li□2 battery truly rechargeable. **2013**, 37, 2568	22
2229	Net primary energy balance of a solar-driven photoelectrochemical water-splitting device. **2013**, 6, 2380	54
2228	High-Performance Lithium-Iodine Flow Battery. **2013**, 3, 1630-1635	99
2227	An FeF(3)□0.5H2O polytype: a microporous framework compound with intersecting tunnels for Li and Na batteries. **2013**, 135, 11425-8	142
2226	Na2Ti6O13: a potential anode for grid-storage sodium-ion batteries. **2013**, 49, 7451-3	167
2225	A high power density single flow zinc□nickel battery with three-dimensional porous negative electrode. **2013**, 241, 196-202	63
2224	Electrochemical performance of a nonaqueous rechargeable lithium-air battery. **2013**, 19, 1791-1793	6
2223	The Economics of Solar Electricity. **2013**, 5, 387-426	97
2222	Room-temperature stationary sodium-ion batteries for large-scale electric energy storage. **2013**, 6, 2338	2419
2221	A low-cost and environmentally benign aqueous rechargeable sodium-ion battery based on NaTi2(PO4)3□Na2NiFe(CN)6 intercalation chemistry. **2013**, 31, 145-148	238

2220	Fused Heteroaromatic Organic Compounds for High-Power Electrodes of Rechargeable Lithium Batteries. **2013**, 3, 600-605	236
2219	Large scale synthesized sulphonated reduced graphene oxide: a high performance material for electrochemical capacitors. **2013**, 3, 14954	15
2218	Graphene-encapsulated Si on ultrathin-graphite foam as anode for high capacity lithium-ion batteries. **2013**, 25, 4673-7	291
2217	Mixed-integer linear model for transmission expansion planning with line losses and energy storage systems. **2013**, 7, 919-928	67
2216	P2-type layered Na0.45Ni0.22Co0.11Mn0.66O2 as intercalation host material for lithium and sodium batteries. **2013**, 110, 208-213	83
2215	High capacity Li2MnSiO4/C nanocomposite prepared by sol□gel method for lithium-ion batteries. **2013**, 232, 258-263	84
2214	Electrode Properties of P2□Na2/3MnyCo1□yO2 as Cathode Materials for Sodium-Ion Batteries. **2013**, 117, 15545-15551	155
2213	Cooperation behavior between heterogeneous cations in hybrid batteries. **2013**, 49, 9977-9	39
2212	A zero-strain layered metal oxide as the negative electrode for long-life sodium-ion batteries. **2013**, 4, 2365	468
2211	Synthesis of Li2FeSiO4/C and its excellent performance in aqueous lithium-ion batteries. **2013**, 1, 10912	16
2210	A high performance pseudocapacitive suspension electrode for the electrochemical flow capacitor. **2013**, 111, 888-897	121
2209	Vulnerability of Solar Energy Resources under Climate Variability. **2013**, 89-103	3
2208	Enhanced rate capabilities of Co3O4/carbon nanotube anodes for lithium ion battery applications. **2013**, 1, 11121	46
2207	Bimetallic cyanide-bridged coordination polymers as lithium ion cathode materials: core@shell nanoparticles with enhanced cyclability. **2013**, 135, 2793-9	173
2206	Hierarchically structured graphene-based supercapacitor electrodes. **2013**, 3, 21183	51
2205	Uniform hierarchical MoO2/carbon spheres with high cycling performance for lithium ion batteries. **2013**, 1, 12038	54
2204	Electrochemical Reaction of Lithium with Nanostructured Silicon Anodes: A Study by In-Situ Synchrotron X-Ray Diffraction and Electron Energy-Loss Spectroscopy. **2013**, 3, 1324-1331	69
2203	Solvothermal synthesis of monodisperse LiFePO4 micro hollow spheres as high performance cathode material for lithium ion batteries. **2013**, 5, 8961-7	54

2202	A Facile Synthesis of a Palladium-Doped Polyaniline-Modified Carbon Nanotube Composites for Supercapacitors. **2013**, 42, 2595-2605	24
2201	Copper germanate nanowire/reduced graphene oxide anode materials for high energy lithium-ion batteries. **2013**, 1, 11404	67
2200	Sn-Cu nanocomposite anodes for rechargeable sodium-ion batteries. **2013**, 5, 8273-7	155
2199	Surface-driven sodium ion energy storage in nanocellular carbon foams. **2013**, 13, 3909-14	202
2198	Optimal electric vehicle charging schedule based on minimum marginal energy production cost. **2013**,	
2197	Understanding the origin of high-rate intercalation pseudocapacitance in Nb2O5 crystals. **2013**, 1, 14951	118
2196	Carbon-supported Ni@NiO/Al2O3 integrated nanocomposite derived from layered double hydroxide precursor as cycling-stable anode materials for lithium-ion batteries. **2013**, 108, 429-434	34
2195	Three-dimensional morphological measurements of LiCoO2 and LiCoO2/Li(Ni1/3Mn1/3Co1/3)O2 lithium-ion battery cathodes. **2013**, 227, 267-274	55
2194	In situ TEM observation of buffering the anode volume change by using NiTi alloy during electrochemical lithiation/delithiation. **2013**, 24, 325702	5
2193	Nanoscale tin-based intermetallic electrodes encapsulated in microporous copper substrate as the negative electrode with a high rate capacity and a long cycleability for lithium-ion batteries. **2013**, 2, 595-603	26
2192	Freeze-dried WS2 composites with low content of graphene as high-rate lithium storage materials. **2013**, 1, 14548	81
2191	From nanoscience to solutions in electrochemical energy storage. **2013**, 31, 058503	14
2190	One-pot synthesis of uniform Fe3O4 nanocrystals encapsulated in interconnected carbon nanospheres for superior lithium storage capability. **2013**, 57, 130-138	93
2189	Encapsulation of Sulfur in a Hollow Porous Carbon Substrate for Superior Li-S Batteries with Long Lifespan. **2013**, 30, 321-325	85
2188	A Precious-Metal-Free Regenerative Fuel Cell for Storing Renewable Electricity. **2013**, 3, 1545-1550	65
2187	Hierarchical hollow spheres of Fe2O3 @polyaniline for lithium ion battery anodes. **2013**, 25, 6250-5	283
2186	Understanding the role of different conductive polymers in improving the nanostructured sulfur cathode performance. **2013**, 13, 5534-40	543
2185	Copper doped hollow structured manganese oxide mesocrystals with controlled phase structure and morphology as anode materials for lithium ion battery with improved electrochemical performance. **2013**, 5, 10975-84	140

2184	Molecular Insights into Carbon Supercapacitors Based on Room-Temperature Ionic Liquids. **2013**, 4, 3367-3376	112
2183	Surface engineered porous silicon for stable, high performance electrochemical supercapacitors. **2013**, 3, 3020	126
2182	Porous CoO/C polyhedra as anode material for Li-ion batteries. **2013**, 108, 506-511	45
2181	Nitrogen-self-doped graphene as a high capacity anode material for lithium-ion batteries. **2013**, 1, 14586	35
2180	Electrospun three-dimensional mesoporous silicon nanofibers as an anode material for high-performance lithium secondary batteries. **2013**, 5, 12005-10	74
2179	A low cost, all-organic Na-ion battery based on polymeric cathode and anode. **2013**, 3, 2671	197
2178	High performance Li4Ti5O12 material as anode for lithium-ion batteries. **2013**, 113, 679-685	30
2177	Synthesis of nano-scale fast ion conducting cubic Li7La3Zr2O12. **2013**, 24, 424005	90
2176	A review and probabilistic model of lifecycle costs of stationary batteries in multiple applications. **2013**, 25, 240-250	213
2175	Three-dimensional lithium-ion batteries with interdigitated electrodes. **2013**,	4
2174	. **2013**,	3
2173	Effects of Li-ion vacancies on the ionic conduction mechanism of LiMgSO4F. **2013**, 21, 074003	2
2172	Convection batteryEhodeling, insight, and review. **2013**, 59, 2833-2842	9
2171	Hierarchical Layered Double Hydroxide Microspheres with Largely Enhanced Performance for Ethanol Electrooxidation. **2013**, 23, 3513-3518	88
2170	Nanoscroll buffered hybrid nanostructural VO2 (B) cathodes for high-rate and long-life lithium storage. **2013**, 25, 2969-73	186
2169	A hybrid redox flow battery with high energy efficiency using a low cost sandwiched membrane as a separator and LiMn2O4 as a cathode. **2013**, 1, 14476	5
2168	High Energy Density Metal-Air Batteries: A Review. **2013**, 160, A1759-A1771	453
2167	Lithium-sulfur batteries: electrochemistry, materials, and prospects. **2013**, 52, 13186-200	1989

2166	Advanced Energy-Storage Architectures Composed of Spinel Lithium Metal Oxide Nanocrystal on Carbon Textiles. **2013**, 3, 1484-1489	101
2165	Stromspeicher f□ die □nergiewende□□eine akteursbasierte Analyse der zus□tzlichen Speicherkosten. **2013**, 37, 249-260	9
2164	Amorphous CoSnO3@C nanoboxes with superior lithium storage capability. **2013**, 6, 87-91	300
2163	Synergistic effect of carbon nanofiber/nanotube composite catalyst on carbon felt electrode for high-performance all-vanadium redox flow battery. **2013**, 13, 4833-9	231
2162	Synthesis, characterization and electrochemical performance of Li2FeSiO4/C for lithium-ion batteries. **2013**, 3, 408-412	24
2161	Supercapacitor operating at 200 degrees celsius. **2013**, 3, 2572	75
2160	Graphene-supported Na3V2(PO4)3 as a high rate cathode material for sodium-ion batteries. **2013**, 1, 11350	227
2159	Supercritically exfoliated ultrathin vanadium pentoxide nanosheets with high rate capability for lithium batteries. **2013**, 15, 16828-33	63
2158	Molten air □a new, highest energy class of rechargeable batteries. **2013**, 6, 3646	32
2157	Recent progress and remaining challenges in sulfur-based lithium secondary batteries--a review. **2013**, 49, 10545-62	430
2156	Designed synthesis of graphene□TiO2□SnO2 ternary nanocomposites as lithium-ion anode materials. **2013**, 37, 3671	38
2155	Facile synthesis of Li4Ti5O12 nanosheets stacked by ultrathin nanoflakes for high performance lithium ion batteries. **2013**, 1, 14618	39
2154	Function-oriented design of conjugated carbonyl compound electrodes for high energy lithium batteries. **2013**, 4, 1330	291
2153	Hierarchical hollow microspheres assembled from N-doped carbon coated Li4Ti5O12 nanosheets with enhanced lithium storage properties. **2013**, 1, 15429	60
2152	Silicon nanowire lithium-ion battery anodes with ALD deposited TiN coatings demonstrate a major improvement in cycling performance. **2013**, 1, 12850	104
2151	High-performance hollow sulfur nanostructured battery cathode through a scalable, room temperature, one-step, bottom-up approach. **2013**, 110, 7148-53	340
2150	Oxidation rate of Fe and electrochemical performance of Fe□air solid oxide rechargeable battery using LaGaO3 based oxide ion conductor. **2013**, 3, 8820	24
2149	Field tests experience from 1.6MW/400kWh Li-ion battery energy storage system providing primary frequency regulation service. **2013**,	15

2148	Aqueous semi-solid flow cell: demonstration and analysis. **2013**, 15, 15833-9	85
2147	Accelerated lifetime testing methodology for lifetime estimation of Lithium-ion batteries used in augmented wind power plants. **2013**,	6
2146	Mesoscopic magnetic iron oxide spheres for high performance Li-ion battery anode: a new pulsed laser induced reactive micro-bubble synthesis process. **2013**, 1, 13932	16
2145	Interweaving of multilevel carbon networks with mesoporous TiO2 for lithium-ion battery anodes. **2013**, 3, 24882	1
2144	A high power density electrode with ultralow carbon via direct growth of particles on graphene sheets. **2013**, 1, 6183	20
2143	Highly entangled carbon nanoflakes on Li3V2(PO4)3 microrods for improved lithium storage performance. **2013**, 3, 1297-1301	32
2142	Cell degradation of a Na□NiCl2 (ZEBRA) battery. **2013**, 1, 14935	54
2141	Self-doped polypyrrole with ionizable sodium sulfonate as a renewable cathode material for sodium ion batteries. **2013**, 49, 11370-2	76
2140	Fabrication and electrochemical performance of 3D hierarchical □Ni(OH)2 hollow microspheres wrapped in reduced graphene oxide. **2013**, 1, 9083	78
2139	A simple integrated design and manufacture by electrospinning of stabilized lithium battery tin-based anodes. **2013**, 3, 19251	7
2138	Electrochemical Mg2+ intercalation into a bimetallic CuFe Prussian blue analog in aqueous electrolytes. **2013**, 1, 13055	126
2137	Li4Ti5O12□TiO2 composite anode material for lithium-ion batteries. **2013**, 222, 196-201	93
2136	Self-organized amorphous TiO2 nanotube arrays on porous Ti foam for rechargeable lithium and sodium ion batteries. **2013**, 222, 461-466	219
2135	Carbon coated hollow Na2FePO4F spheres for Na-ion battery cathodes. **2013**, 223, 62-67	115
2134	Ion transport restriction in mechanically strained separator membranes. **2013**, 226, 149-155	94
2133	High temperature sodium batteries: status, challenges and future trends. **2013**, 6, 734	500
2132	Imprintable, bendable, and shape-conformable polymer electrolytes for versatile-shaped lithium-ion batteries. **2013**, 25, 1395-400	165
2131	Reversible chemical delithiation/lithiation of LiFePO4: towards a redox flow lithium-ion battery. **2013**, 15, 1793-7	133

2130	An all-organic rechargeable battery using bipolar polyparaphenylene as a redox-active cathode and anode. **2013**, 49, 567-9	105
2129	Toward Na-ion Batteries Synthesis and Characterization of a Novel High Capacity Na Ion Intercalation Material. **2013**, 25, 142-148	172
2128	Directing silicon-graphene self-assembly as a core/shell anode for high-performance lithium-ion batteries. **2013**, 29, 744-9	130
2127	Synthesis, properties and applications of colloidal germanium and germanium-based nanomaterials. **2013**, 42, 2861-79	141
2126	Hydrophobic asymmetric ultrafiltration PVDF membranes: an alternative separator for VFB with excellent stability. **2013**, 15, 1766-71	75
2125	Silicon-Graphene Composite Anodes for High-Energy Lithium Batteries. **2013**, 1, 77-84	10
2124	In situ high-energy X-ray diffraction to study overcharge abuse of 18650-size lithium-ion battery. **2013**, 230, 32-37	61
2123	Highly porous carbon nanofibers from electrospun polyimide/SiO2 hybrids as an improved anode for lithium-ion batteries. **2013**, 34, 52-55	64
2122	Comparison of the technical potential for hydrogen, battery electric, and conventional light-duty vehicles to reduce greenhouse gas emissions and petroleum consumption in the United States. **2013**, 38, 1200-1208	32
2121	Elucidating the higher stability of vanadium(V) cations in mixed acid based redox flow battery electrolytes. **2013**, 241, 173-177	64
2120	Improving capacitance performance of attapulgite/polypyrrole composites by introducing rhodamine B. **2013**, 89, 422-428	27
2119	Reversible Li and Na storage behaviors of perylenetetracarboxylates as organic anodes for Li- and Na-ion batteries. **2013**, 688, 93-97	82
2118	Li4Ti5O12/graphene nanostructure for lithium storage with high-rate performance. **2013**, 109, 389-394	33
2117	Structure control and performance improvement of carbon nanofibers containing a dispersion of silicon nanoparticles for energy storage. **2013**, 51, 185-194	76
2116	Fe Air rechargeable battery using oxide ion conducting electrolyte of Y2O3 stabilized ZrO2. **2013**, 229, 12-15	38
2115	Anode behavior of Sn/WC/graphene triple layered composite for lithium-ion batteries. **2013**, 108, 674-679	20
2114	The private and social economics of bulk electricity storage. **2013**, 66, 404-423	47
2113	Layered Li[Ni0.5Co0.2Mn0.3]O2 Li2MnO3 core shell structured cathode material with excellent stability. **2013**, 242, 589-596	62

2112	Development of carbon coated membrane for zinc/bromine flow battery with high power density. **2013**, 227, 41-47	69
2111	Layered Na2RuO3 as a cathode material for Na-ion batteries. **2013**, 33, 23-26	71
2110	TiO2-B nanofibers with high thermal stability as improved anodes for lithium ion batteries. **2013**, 27, 124-127	29
2109	Cerium vanadate nanoparticles as a new anode material for lithium ion batteries. **2013**, 3, 7403	21
2108	A superior low-cost cathode for a Na-ion battery. **2013**, 52, 1964-7	586
2107	FePO4 nanoparticles embedded in a large mesoporous carbon matrix as a high-capacity and high-rate cathode for lithium-ion batteries. **2013**, 92, 433-437	19
2106	A membrane-free lithium/polysulfide semi-liquid battery for large-scale energy storage. **2013**, 6, 1552	331
2105	Conformal Fe3O4 sheath on aligned carbon nanotube scaffolds as high-performance anodes for lithium ion batteries. **2013**, 13, 818-23	268
2104	Strongly coupled inorganic-nano-carbon hybrid materials for energy storage. **2013**, 42, 3088-113	707
2103	Lithium/sulfur batteries with high specific energy: old challenges and new opportunities. **2013**, 5, 2186-204	429
2102	Facile synthesis of manganese oxide/aligned carbon nanotubes over aluminium foil as 3D binder free cathodes for lithium ion batteries. **2013**, 1, 3757	41
2101	Electrical power generation by mechanically modulating electrical double layers. **2013**, 4, 1487	138
2100	Silicon nanowires for advanced energy conversion and storage. **2013**, 8, 75-97	227
2099	Using waste Li ion batteries as cathodes in rechargeable Li-liquid batteries. **2013**, 15, 7036-40	9
2098	Scenario-based modelling of future residential electricity demands and assessing their impact on distribution grids. **2013**, 56, 233-247	62
2097	Electron microscopy: Phase transition singled out. **2013**, 5, 363-4	5
2096	Water electrolysis: Divide and conquer. **2013**, 5, 362-3	287
2095	Layer-by-layer synthesis of Fe2O3@SnO2@C porous core-shell nanorods with high reversible capacity in lithium-ion batteries. **2013**, 5, 4744-50	40

2094	Ordered mesoporous □MgMoO□thin films for lithium-ion battery applications. **2013**, 9, 2541-4	24
2093	Carbon-encapsulated Fe3O4 nanoparticles as a high-rate lithium ion battery anode material. **2013**, 7, 4459-69	824
2092	Graphene-based electrodes for electrochemical energy storage. **2013**, 6, 1388	631
2091	Two-phase electrochemical lithiation in amorphous silicon. **2013**, 13, 709-15	336
2090	An aqueous rechargeable lithium battery using coated Li metal as anode. **2013**, 3, 1401	174
2089	The First Report on Excellent Cycling Stability and Superior Rate Capability of Na3V2(PO4)3 for Sodium Ion Batteries. **2013**, 3, 444-450	579
2088	Metal oxides and oxysalts as anode materials for Li ion batteries. **2013**, 113, 5364-457	2412
2087	Aqueous Solution Process for the Synthesis and Assembly of Nanostructured One-Dimensional □MoO3 Electrode Materials. **2013**, 25, 2557-2563	46
2086	Highly robust silicon nanowire/graphene core-shell electrodes without polymeric binders. **2013**, 5, 8986-91	30
2085	Vanadium Flow Battery for Energy Storage: Prospects and Challenges. **2013**, 4, 1281-94	357
2084	Hydrothermal carbon-based nanostructured hollow spheres as electrode materials for high-power lithium-sulfur batteries. **2013**, 15, 6080-7	156
2083	Developing a light weight lithium ion battery □an effective material and electrode design for high performance conversion anodes. **2013**, 3, 6386	19
2082	Carbon-Nanotube-Decorated Nano-LiFePO4 @C Cathode Material with Superior High-Rate and Low-Temperature Performances for Lithium-Ion Batteries. **2013**, 3, 1155-1160	294
2081	Suppressed Activation Energy for Interfacial Charge Transfer of a Prussian Blue Analog Thin Film Electrode with Hydrated Ions (Li+, Na+, and Mg2+). **2013**, 117, 10877-10882	134
2080	Bismuth nanoparticle decorating graphite felt as a high-performance electrode for an all-vanadium redox flow battery. **2013**, 13, 1330-5	310
2079	High-performance rechargeable lithium-iodine batteries using triiodide/iodide redox couples in an aqueous cathode. **2013**, 4, 1896	193
2078	Mg-air oxygen shuttle batteries using a ZrO2-based oxide ion-conducting electrolyte. **2013**, 49, 4691-3	32
2077	Effect of oxygen vacancy on Li-ion diffusion in a V2O5 cathode: a first-principles study. **2013**, 46, 105306	24

2076	Mechanistic study of the electrochemical extraction of K+ from KFeSO4F. **2013**, 1, 8000	11
2075	Effect of cathode/anode area ratio on electrochemical performance of lithium-ion batteries. **2013**, 243, 641-647	31
2074	Titanium silicide nanonet as a new material platform for advanced lithium ion battery applications. **2013**, 49, 6470-6	15
2073	Carbon-Free TiO2 Battery Electrodes Enabled by Morphological Control at the Nanoscale. **2013**, 3, 1286-1291	35
2072	Fluorine-Based Polyanionic Compounds for High-Voltage Electrode Materials. **2013**, 127-160	1
2071	A photo-cross-linkable polymeric binder for silicon anodes in lithium ion batteries. **2013**, 3, 12625	43
2070	Tuning the porous structure of carbon hosts for loading sulfur toward long lifespan cathode materials for Li batteries. **2013**, 1, 6602	170
2069	Nanoporous Polytetrafluoroethylene/Silica Composite Separator as a High-Performance All-Vanadium Redox Flow Battery Membrane. **2013**, 3, 1215-1220	130
2068	Nanostructured 3D electrode architectures for high-rate Li-ion batteries. **2013**, 25, 3238-43	79
2067	Rationally Designed Hierarchical TiO2@Fe2O3 Hollow Nanostructures for Improved Lithium Ion Storage. **2013**, 3, 737-743	274
2066	Rational design of anode materials based on Group IVA elements (Si, Ge, and Sn) for lithium-ion batteries. **2013**, 8, 1948-58	163
2065	A solar rechargeable flow battery based on photoregeneration of two soluble redox couples. **2013**, 6, 802-6	91
2064	Nanosilicon-Based Thick Negative Composite Electrodes for Lithium Batteries with Graphene as Conductive Additive. **2013**, 3, 1351-1357	56
2063	Spinel/layered heterostructured cathode material for high-capacity and high-rate Li-ion batteries. **2013**, 25, 3722-6	222
2062	Polyanionic (phosphates, silicates, sulfates) frameworks as electrode materials for rechargeable Li (or Na) batteries. **2013**, 113, 6552-91	820
2061	Solar rechargeable redox flow battery based on Li2WO4/LiI couples in dual-phase electrolytes. **2013**, 1, 7012	89
2060	Capacity fading mechanism of LiFePO4-based lithium secondary batteries for stationary energy storage. **2013**, 229, 190-197	96
2059	Synthesis and Electrode Performance of O3-Type NaFeO2-NaNi1/2Mn1/2O2Solid Solution for Rechargeable Sodium Batteries. **2013**, 160, A3131-A3137	154

2058	Effect of biaxial orientation on dielectric and breakdown properties of poly(ethylene terephthalate)/poly(vinylidene fluoride-co-tetrafluoroethylene) multilayer films. **2013**, 51, 882-896	67
2057	Top-Down Synthesis of Open Framework Fluoride for Lithium and Sodium Batteries. **2013**, 25, 962-969	101
2056	Why Do Sulfone-Based Electrolytes Show Stability at High Voltages? Insight from Density Functional Theory. **2013**, 4, 3992-3999	80
2055	Synergistic effect of hierarchical nanostructured MoO2/Co(OH)2 with largely enhanced pseudocapacitor cyclability. **2013**, 13, 5685-91	171
2054	Simply mixed commercial red phosphorus and carbon nanotube composite with exceptionally reversible sodium-ion storage. **2013**, 13, 5480-4	347
2053	High-Throughput Solution Combustion Synthesis of High-Capacity LiFeBO3Cathode. **2013**, 160, A3095-A3099	28
2052	Highly reversible open framework nanoscale electrodes for divalent ion batteries. **2013**, 13, 5748-52	348
2051	Novel phosphamide additive to improve thermal stability of solid electrolyte interphase on graphite anode in lithium-ion batteries. **2013**, 5, 11494-7	34
2050	Rapid characterization of lithium ion battery electrolytes and thermal aging products by low-temperature plasma ambient ionization high-resolution mass spectrometry. **2013**, 85, 3433-8	51
2049	Recent Progress in Redox Flow Battery Research and Development. **2013**, 23, 970-986	995
2048	Advanced Gel Polymer Electrolyte for Lithium-Ion Polymer Batteries. **2013**,	4
2047	Cheap glass fiber mats as a matrix of gel polymer electrolytes for lithium ion batteries. **2013**, 3, 3187	88
2046	Large scale energy storage with redox flow batteries. **2013**, 32, 1459-1470	7
2045	Mechanism of Dioxovanadium Ion Reduction on Oxygen-Enriched Carbon Surface. **2013**, 160, A1293-A1298	21
2044	Silicon-Based Non Aqueous Anolyte for Li Redox-Flow Batteries. **2013**, 160, A516-A520	65
2043	Coordination chemistry in magnesium battery electrolytes: how ligands affect their performance. **2013**, 3, 3130	133
2042	A permeation model for the electrochemical interface. **2013**, 21, 074006	5
2041	N-Allyl-N-Methyl Piperidinium Bis(Trifluoromethanesulfonyl) Imide as a Co-Solvent in Li-Ion Batteries. **2013**, 750-752, 1194-1198	4

2040	Synthesis of Na-β/βAl2O3 nanorods in an ionic liquid. **2013**, 28, 2017-2022	1
2039	Improving the Performance of Graphite/ LiNi0.5Mn1.5O4Cells at High Voltage and Elevated Temperature with Added Lithium Bis(oxalato) Borate (LiBOB). **2013**, 160, A2005-A2013	92
2038	Enhancing the Performance of the Rechargeable Iron Electrode in Alkaline Batteries with Bismuth Oxide and Iron Sulfide Additives. **2013**, 160, A2078-A2084	72
2037	Towards High Power High Energy Aqueous Sodium-Ion Batteries: The NaTi2(PO4)3/Na0.44MnO2 System. **2013**, 3, 290-294	367
2036	Multi-physics model for regenerative PEM fuel cell energy storage. **2013**,	1
2035	Structure, Stoichiometry, and Electrochemical Performance of Li CoTi O as an Anode Material for Lithium-Ion Batteries. **2013**, 78, 1530-1535	13
2034	Enhanced Rate Capability by Employing Carbon Nanotube-Loaded Electrospun Si/C Composite Nanofibers As Binder-Free Anodes. **2013**, 160, A528-A534	28
2033	. **2013**,	4
2032	The lifetime of the LiFePO4/C battery energy storage system when used for smoothing of the wind power plant variations. **2013**,	2
2031	Effect of Volume Expansion on SEI Covering Carbon-Coated Nano-Si/SiO Composite. **2013**, 160, A1789-A1793	10
2030	Mechanism of Phase Propagation During Lithiation in Carbon-Free Li4Ti5O12 Battery Electrodes. **2013**, 23, 1214-1222	134
2029	Polyvinyl Chloride/Silica Nanoporous Composite Separator for All-Vanadium Redox Flow Battery Applications. **2013**, 160, A1215-A1218	34
2028	First Principles Calculations for Diffusion Barriers of Lithium Intercalation into Graphite with Various Edge Terminations. **2013**, 52, 04CN08	4
2027	A Superior Low-Cost Cathode for a Na-Ion Battery. **2013**, 125, 2018-2021	66
2026	Lithium-Schwefel-Batterien: Elektrochemie, Materialien und Perspektiven. **2013**, 125, 13426-13441	163
2025	Analysis of materials and energy flows of different lithium ion traction batteries. **2013**, 110, 65-76	19
2024	A Study on Surface Structures of Negative Electrodes for Sodium-Ion Batteries. **2013**, 34, 303-308	
2023	Magnesium batteries: Current state of the art, issues and future perspectives. **2014**, 5, 1291-311	294

2022	Batteries: An Important Piece in the Puzzle of Renewable Energies for a Better World. **2014**, 2,	3
2021	Review of Electrochemical Performance of LiNiO2 and their Derivatives as Cathode Material for Lithium-ion Batteries. **2014**, 70,	4
2020	Improvement of the Performance of Graphite Felt Electrodes for Vanadium-Redox-Flow-Batteries by Plasma Treatment. **2014**, 3,	21
2019	Reversible Solid State Fe-Air Rechargeable Battery Using LaGaO3 Based Oxide Ion Conducting Electrolyte. **2014**, 783-786, 1680-1685	
2018	Community energy storage, a critical element in smart grid: A review of technology, prospect, challenges and opportunity. **2014**,	4
2017	LiMn2O4-based materials as anodes for lithium-ion battery. **2014**, 07, 1350070	12
2016	Layered oxides as positive electrode materials for Na-ion batteries. **2014**, 39, 416-422	177
2015	Li3V2(PO4)3-coated Li1.17Ni0.2Co0.05Mn0.58O2 as the cathode materials with high rate capability for Lithium ion batteries. **2014**, 147, 696-703	24
2014	Stabilization of selenium cathodes via in situ formation of protective solid electrolyte layer. **2014**, 2, 18898-18905	27
2013	Accelerated Lifetime Testing Methodology for Lifetime Estimation of Lithium-Ion Batteries Used in Augmented Wind Power Plants. **2014**, 50, 4006-4017	90
2012	Towards an understanding of the role of hyper-branched oligomers coated on cathodes, in the safety mechanism of lithium-ion batteries. **2014**, 4, 56147-56155	16
2011	Si-Based Anode Materials for Li-Ion Batteries: A Mini Review. **2014**, 6, 347-358	266
2010	Inorganic & organic materials for rechargeable Li batteries with multi-electron reaction. **2014**, 57, 42-58	68
2009	The Big Jump from the Legs of a Frog [Historical]. **2014**, 8, 59-61,69	11
2008	Monitoring Innovation in Electrochemical Energy Storage Technologies: A Patent-based Approach. **2014**, 61, 2293-2296	3
2007	Energy Storage and Materials. **2014**, 323-386	
2006	Na-doped Ni-rich LiNi0.5Co0.2Mn0.3O2 cathode material with both high rate capability and high tap density for lithium ion batteries. **2014**, 43, 14824-32	152
2005	Hydrological and hydro-energy indicators of the hybrid energy system using solar and pump storage hydroelectric plant. **2014**, 33, 827-841	0

2004	Hybrid CuO/SnO2 nanocomposites: Towards cost-effective and high performance binder free lithium ion batteries anode materials. **2014**, 105, 143905	47
2003	Nanostructured lithium titanate and lithium titanate/carbon nanocomposite as anode materials for advanced lithium-ion batteries. **2014**, 3,	13
2002	Implications of diurnal and seasonal variations in renewable energy generation for large scale energy storage. **2014**, 6, 033105	61
2001	First-Principles Study on Structural and Electronic Properties of □S and Na□ Crystals. **2014**, 83, 124713	19
2000	Application of Distributed Energy Storage. **2014**, 1070-1072, 373-377	
1999	Al-doped Li2ZnTi3O8 as an effective anode material for lithium-ion batteries with good rate capabilities. **2014**, 731, 60-66	46
1998	Study of electrochemical alkali insertion into carbonaceous materials. **2014**,	1
1997	Accuracy state of charge estimation used in energy storage system for electric transportation. **2014**,	0
1996	Operating Conditions and System Considerations for a Reversible Solid Oxide Cell System for Electrical Energy Storage. **2014**,	
1995	Separators - Technology review: Ceramic based separators for secondary batteries. **2014**,	31
1994	Randomized auction design for electricity markets between grids and microgrids. **2014**,	16
1993	Recent research progress on iron- and manganese-based positive electrode materials for rechargeable sodium batteries. **2014**, 15, 043501	157
1992	Nanoscale strain mapping in battery nanostructures. **2014**, 104, 073108	37
1991	SPEEK/Graphene oxide nanocomposite membranes with superior cyclability for highly efficient vanadium redox flow battery. **2014**, 2, 12423-12432	198
1990	Phosphorous acid route synthesis of iron tavorite phases, LiFePO4(OH)xF1□ [0 □x □1] and comparative study of their electrochemical activities. **2014**, 4, 37691-37700	29
1989	MoO2/Mo2C Heteronanotubes Function as High-Performance Li-Ion Battery Electrode. **2014**, 24, 3399-3404	160
1988	A high-capacity dual-electrolyte aluminum/air electrochemical cell. **2014**, 4, 30857-30863	32
1987	Model Development and Identification for Fast Demand Response in Commercial HVAC Systems. **2014**, 5, 2084-2092	69

1986	Detektion lokaler und zeitlicher Veränderungen der Elektrodengrenzschicht in Lithium-Ionen-Batterien mit dem elektrochemischen Rastermikroskop. **2014**, 126, 10699-10704	10
1985	Chapter 8:Nanowires for High-Performance Li-Ion Battery Electrodes. **2014**, 363-399	
1984	TEMPO-based catholyte for high-energy density nonaqueous redox flow batteries. **2014**, 26, 7649-53	312
1983	Effect of Ni/Fe ratio on the performance and stability of the Fe-air rechargeable battery using a La0.9Sr0.1Ga0.8Mg0.2O3 electrolyte. **2014**, 39, 21352-21357	5
1982	Naphthalene Diimide Based Materials with Adjustable Redox Potentials: Evaluation for Organic Lithium-Ion Batteries. **2014**, 26, 7151-7157	104
1981	Electrodeposited porous metal oxide films with interconnected nanoparticles applied as anode of lithium ion battery. **2014**, 60, 864-867	2
1980	Reduced Graphene Oxide Paper Electrode: Opposing Effect of Thermal Annealing on Li and Na Cyclability. **2014**, 118, 28401-28408	146
1979	Organic Dicarboxylate Negative Electrode Materials with Remarkably Small Strain for High-Voltage Bipolar Batteries. **2014**, 126, 11651-11656	24
1978	Synthesis and electrochemical performances of maricite-NaMPO4 (M = Ni, Co, Mn) electrodes for hybrid supercapacitors. **2014**, 4, 53192-53200	76
1977	Hierarchical sulfur-based cathode materials with long cycle life for rechargeable lithium batteries. **2014**, 7, 563-9	71
1976	Microscopic properties of lithium, sodium, and magnesium battery anode materials related to possible dendrite growth. **2014**, 141, 174710	207
1975	Aqueous Sodium-Ion Battery using a Na3V2(PO4)3 Electrode. **2014**, 1, 871-876	82
1974	Nanostructured transition metal sulfides for lithium ion batteries: Progress and challenges. **2014**, 9, 604-630	450
1973	Sustainable Electrical Energy Storage through the Ferrocene/Ferrocenium Redox Reaction in Aprotic Electrolyte. **2014**, 126, 11216-11220	29
1972	Improving the Energy Storage Performance of Graphene through Insertion of Pristine CNTs and Ordered Mesoporous Carbon Coating. **2014**, 1, 772-778	42
1971	Aluminum Insertion-Induced Enhanced Performance of Li(Ni0.83-xCo0.10Mn0.07Aly)O2 Microspheres for Lithium-Ion Batteries Design. **2014**, 1, 601-610	16
1970	P2-type Nax[Fe,Ni,Mn]O2 for high capacity Na-ion batteries. **2014**,	
1969	Growth control of the oxidation state in vanadium oxide thin films. **2014**, 105, 223515	54

1968	Operating mechanisms of electrolytes in magnesium ion batteries: chemical equilibrium, magnesium deposition, and electrolyte oxidation. **2014**, 16, 25789-98	27
1967	Energy Storage, Carbon Sequestration, and Geoengineering. **2014**, 57-68	
1966	Improved cycling and high rate performance of core-shell LiFe 1/3 Mn 1/3 Co 1/3 PO 4 /carbon nanocomposites for lithium-ion batteries: Effect of the carbon source. **2014**, 143, 407-414	16
1965	Power Electronics for Renewable Energy Systems, Transportation and Industrial Applications [Book News]. **2014**, 8, 68-69	2
1964	Modeling the Ion Transport Restriction in Mechanically Strained Separator Membranes. **2014**, 161, A583-A586	11
1963	Effect of electrochemical dissolution and deposition order on lithium dendrite formation: a top view investigation. **2014**, 176, 109-24	39
1962	Consensus Control for Battery Management System. **2014**, 945-949, 2732-2736	
1961	Ab initio calculations of polycyclic aromatic hydrocarbons adsorbed on graphite edge for molecular-scale surface coatings of lithium-ion battery anodes. **2014**, 53, 04EN05	1
1960	Hydrothermal Synthesis and Electrochemical Performance of LiNi0.5Mn0.5O2 as Lithium-Ion Battery Cathode. **2014**, 672-674, 638-645	1
1959	P-type NaxNi0.22Co0.11Mn0.66O2 materials: linking synthesis with structure and electrochemical performance. **2014**, 2, 20263-20270	62
1958	Effect of the alkali insertion ion on the electrochemical properties of nickel hexacyanoferrate electrodes. **2014**, 176, 69-81	50
1957	Li2MnO3 based Li-rich cathode materials: towards a better tomorrow of high energy lithium ion batteries. **2014**, 29, A59-A69	21
1956	Randomized auction design for electricity markets between grids and microgrids. **2014**, 42, 99-110	8
1955	Novel lithium and sodium salts of sulfonamides and bis(sulfonyl)imides: synthesis and electrical conductivity. **2014**, 38, 6193-6197	9
1954	Effects of flow cell design on charge percolation and storage in the carbon slurry electrodes of electrochemical flow capacitors. **2014**, 247, 489-496	75
1953	Redox flow batteries for the storage of renewable energy: A review. **2014**, 29, 325-335	666
1952	Poly(vinylidene fluoride) porous membranes precipitated in water/ethanol dual-coagulation bath: The relationship between morphology and performance in vanadium flow battery. **2014**, 249, 84-91	63
1951	Cathodes with intrinsic redox overcharge protection: A new strategy towards safer Li-ion batteries. **2014**, 264, 155-160	9

1950	Continuous power supply from a baseload renewable power plant. **2014**, 122, 83-93	36
1949	Surface modification of LiV3O8 nanosheets via layer-by-layer self-assembly for high-performance rechargeable lithium batteries. **2014**, 257, 319-324	19
1948	Li and Na storage behavior of bowl-like hollow Co3O4 microspheres as an anode material for lithium-ion and sodium-ion batteries. **2014**, 132, 193-199	88
1947	A one-pot approach towards FeF2–carbon core–shell composite and its application in lithium ion batteries. **2014**, 606, 226-230	13
1946	Enhancement of low-temperature performance of LiFePO4 electrode by butyl sultone as electrolyte additive. **2014**, 254, 27-31	31
1945	SnS2/reduced graphene oxide nanocomposites with superior lithium storage performance. **2014**, 115, 425-433	79
1944	Coaxial electrospun Si/C– core–shell composite nanofibers as binder-free anodes for lithium-ion batteries. **2014**, 258, 67-73	33
1943	Hierarchical nanowires for high-performance electrochemical energy storage. **2014**, 9, 303-322	16
1942	Electrical, mechanical and morphological properties of compressed carbon felt electrodes in vanadium redox flow battery. **2014**, 245, 66-75	71
1941	Temperature and potential dependence electrochemical impedance studies of LiMn2O4. **2014**, 44, 61-71	4
1940	Determination of sodium ion diffusion coefficients in sodium vanadium phosphate. **2014**, 18, 959-964	50
1939	Phosphorus Electrodes in Sodium Cells: Small Volume Expansion by Sodiation and the Surface-Stabilization Mechanism in Aprotic Solvent. **2014**, 1, 580-589	169
1938	Solution synthesis of metal oxides for electrochemical energy storage applications. **2014**, 6, 5008-48	321
1937	Lignin-derived electrospun carbon nanofiber mats with supercritically deposited Ag nanoparticles for oxygen reduction reaction in alkaline fuel cells. **2014**, 130, 431-438	72
1936	A Sandwich-Like Hierarchically Porous Carbon/Graphene Composite as a High-Performance Anode Material for Sodium-Ion Batteries. **2014**, 4, 1301584	341
1935	Strongly coupled carbon nanofiber–metal oxide coaxial nanocables with enhanced lithium storage properties. **2014**, 7, 302-305	135
1934	Atomistic origins of high rate capability and capacity of N-doped graphene for lithium storage. **2014**, 14, 1164-71	271
1933	Defective graphene as a high-capacity anode material for Na- and Ca-ion batteries. **2014**, 6, 1788-95	301

1932	A zeolite ion exchange membrane for redox flow batteries. **2014**, 50, 2416-9	30
1931	Silica sol–gel chemistry: creating materials and architectures for energy generation and storage. **2014**, 70, 203-215	14
1930	Nanomaterials for electrochemical energy storage. **2014**, 9, 323-350	77
1929	Influence of the pore structure parameters of mesoporous anatase microspheres on their performance in lithium-ion batteries. **2014**, 18, 1673-1681	11
1928	A New Spinel-Layered Li-Rich Microsphere as a High-Rate Cathode Material for Li-Ion Batteries. **2014**, 4, 1400062	137
1927	Pseudocapacitive oxide materials for high-rate electrochemical energy storage. **2014**, 7, 1597	3208
1926	Toward General Rules for the Design of Battery Electrodes Based on Titanium Oxides and Free of Conductive Additives. **2014**, 2, 383-390	3
1925	Three-Dimensionally Curved NiO Nanomembranes as Ultrahigh Rate Capability Anodes for Li-Ion Batteries with Long Cycle Lifetimes. **2014**, 4, 1300912	240
1924	Effect of inorganic additive sodium pyrophosphate tetrabasic on positive electrolytes for a vanadium redox flow battery. **2014**, 121, 321-327	36
1923	Water storage as energy storage in green power system. **2014**, 5, 75-83	8
1922	Electro-thermal modelling of a supercapacitor and experimental validation. **2014**, 259, 154-165	38
1921	PEDOT coated Li4Ti5O12 nanorods: Soft chemistry approach synthesis and their lithium storage properties. **2014**, 129, 283-289	54
1920	Capacity optimization of thermal units transmitted with wind power: A case study of Jiuquan wind power base, China. **2014**, 129, 64-68	2
1919	Break-even analysis for the storage of PV in power distribution grids. **2014**, 38, 1112-1128	7
1918	Ultrathin pre-lithiated V6O13 nanosheet cathodes with enhanced electrical transport and cyclability. **2014**, 255, 235-241	67
1917	Sulfonated Poly(Ether Ether Ketone)/Graphene composite membrane for vanadium redox flow battery. **2014**, 132, 200-207	97
1916	Nanorod niobium oxide as powerful catalysts for an all vanadium redox flow battery. **2014**, 14, 158-65	238
1915	Soft template interfacial growth of novel ultralong polypyrrole nanowires for electrochemical energy storage. **2014**, 132, 112-117	38

1914	Application of Redox Non-Innocent Ligands to Non-Aqueous Flow Battery Electrolytes. **2014**, 4, 1300566	60
1913	Nano-Copper-Assisted Immobilization of Sulfur in High-Surface-Area Mesoporous Carbon Cathodes for Room Temperature Na-S Batteries. **2014**, 4, 1400226	105
1912	Improving grid integration of wind turbines by using secondary batteries. **2014**, 34, 194-207	28
1911	Redox Flow Batteries: An Engineering Perspective. **2014**, 102, 976-999	147
1910	Enhancing thermal and ionic conductivities of electrospun PAN and PMMA nanofibers by graphene nanoflake additions for battery-separator applications. **2014**, 38, 2044-2051	60
1909	Effective Separation of Lithium Anode and Sulfur Cathode in Lithium Sulfur Batteries. **2014**, 1, 1040-1045	61
1908	Microwave-assisted synthesis of metal oxide/hydroxide composite electrodes for high power supercapacitors A review. **2014**, 263, 338-360	314
1907	Flexible and binder-free organic cathode for high-performance lithium-ion batteries. **2014**, 26, 3338-43	176
1906	Optimizing Main Materials for a Lithium-Air Battery of High Cycle Life. **2014**, 24, 2101-2105	43
1905	Filling the voids of graphene foam with graphene "eggshell" for improved lithium-ion storage. **2014** , 6, 9835-41	57
1904	The effects of different core-shell structures on the electrochemical performances of Si-Ge nanorod arrays as anodes for micro-lithium ion batteries. **2014**, 6, 5884-90	46
1903	A multiple ion-exchange membrane design for redox flow batteries. **2014**, 7, 2986-2998	72
1902	Considerations on providing the energy needs using exclusively renewable sources: Energiewende in Germany. **2014**, 35, 109-125	44
1901	Template-Free Fabrication of Mesoporous Hollow ZnMn2O4 Sub-microspheres with Enhanced Lithium Storage Capability towards High-Performance Li-Ion Batteries. **2014**, 31, 657-663	63
1900	Superior electrochemical capability of Li2FeSiO4/C/G composite as cathode material for Li-ion batteries. **2014**, 117, 34-40	42
1899	Mesoporous NiCo2O4 Nanowire Arrays Grown on Carbon Textiles as Binder-Free Flexible Electrodes for Energy Storage. **2014**, 24, 2630-2637	663
1898	Rechargeable magnesium battery: Current status and key challenges for the future. **2014**, 66, 1-86	435
1897	Agent-based model for electricity consumption and storage to evaluate economic viability of tariff arbitrage for residential sector demand response. **2014**, 126, 297-306	73

1896	Sulfur X-ray absorption fine structure in porous Li□ cathode films measured under argon atmospheric conditions. **2014**, 94-95, 22-26	5
1895	Porous iron oxide coating on □-alumina ceramics for Na-based batteries. **2014**, 262, 133-137	10
1894	Superior electrochemical performance and structure evolution of mesoporous Fe2O3 anodes for lithium-ion batteries. **2014**, 3, 26-35	116
1893	Microwave-hydrothermal synthesis of Fe-based materials for lithium-ion batteries and supercapacitors. **2014**, 40, 2877-2884	20
1892	Energy storage: Applications and challenges. **2014**, 120, 59-80	519
1891	Synthesis of Mn□□ nanomaterials with controllable porosity and thickness for enhanced lithium-ion batteries performance. **2014**, 6, 1725-31	88
1890	Effective wrapping of graphene on individual Li4Ti5O12 grains for high-rate Li-ion batteries. **2014**, 2, 2023-2027	69
1889	Re-focussing research efforts on the public acceptance of energy infrastructure: A critical review. **2014**, 76, 4-9	152
1888	Manipulating surface reactions in lithium-sulphur batteries using hybrid anode structures. **2014**, 5, 3015	267
1887	A silicon nanowire-reduced graphene oxide composite as a high-performance lithium ion battery anode material. **2014**, 6, 3353-60	60
1886	Facile synthesis of sandwiched Zn2GeO4-graphene oxide nanocomposite as a stable and high-capacity anode for lithium-ion batteries. **2014**, 6, 924-30	84
1885	Instant gelation synthesis of 3D porous MoS2@C nanocomposites for lithium ion batteries. **2014**, 6, 3664-9	56
1884	Overwhelming microwave irradiation assisted synthesis of olivine-structured LiMPO4 (M=Fe, Mn, Co and Ni) for Li-ion batteries. **2014**, 3, 64-79	52
1883	Enhanced capacitor effects in polyoxometalate/graphene nanohybrid materials: a synergetic approach to high performance energy storage. **2014**, 2, 3801-3807	66
1882	Investigation of metal oxide anode degradation in lithium-ion batteries via identical-location TEM. **2014**, 2, 1627-1630	31
1881	Kinetics and electrochemical characteristics of Mg2NiH4-x wt.% MmNi3.8Co0.75Mn0.4Al0.2 (x = 5, 10, 20, 40) composites for Ni-MH battery. **2014**, 39, 3887-3894	12
1880	Nanoscale Technology for Advanced Lithium Batteries. **2014**,	6
1879	Detection of subsurface structures underneath dendrites formed on cycled lithium metal electrodes. **2014**, 13, 69-73	601

1878	A fast, inexpensive method for predicting overcharge performance in lithium-ion batteries. **2014**, 7, 760-767	38
1877	Improved cycling behavior of ZEBRA battery operated at intermediate temperature of 175 °C. **2014**, 249, 414-417	30
1876	Structural enhancement of Na3V2(PO4)3/C composite cathode materials by pillar ion doping for high power and long cycle life sodium-ion batteries. **2014**, 2, 19623-19632	123
1875	Core-shell ellipsoidal MnCo□□anode with micro-/nano-structure and concentration gradient for lithium-ion batteries. **2014**, 6, 21325-34	102
1874	Understanding the stepwise capacity increase of high energy low-Co Li-rich cathode materials for lithium ion batteries. **2014**, 2, 18767-18774	43
1873	Manganese hexacyanomanganate open framework as a high-capacity positive electrode material for sodium-ion batteries. **2014**, 5, 5280	357
1872	Electrochemical Performance of Thin-Film Functionalized Carbon Nanotube Electrodes in Nonaqueous Cells. **2014**, 161, A1625-A1633	9
1871	Monitoring the solid-state electrochemistry of Cu(2,7-AQDC) (AQDC = anthraquinone dicarboxylate) in a lithium battery: coexistence of metal and ligand redox activities in a metal-organic framework. **2014**, 136, 16112-5	213
1870	Chemically bonded phosphorus/graphene hybrid as a high performance anode for sodium-ion batteries. **2014**, 14, 6329-35	380
1869	Rechargeable Li//Br battery: a promising platform for post lithium ion batteries. **2014**, 2, 19444-19450	65
1868	An ionic self-assembly approach towards sandwich-like graphene/SnO2/graphene nanosheets for enhanced lithium storage. **2014**, 4, 57869-57874	8
1867	Can Faradaic Processes in Residual Iron Catalyst Help Overcome Intrinsic EDLC Limits of Carbon Nanotubes?. **2014**, 118, 26498-26503	11
1866	Boron-Doped Diamond Functionalization by an Electrografting/Alkyne–Azide Click Chemistry Sequence. **2014**, 1, 1145-1154	20
1865	Fabrication of porous carbon/TiO□composites through polymerization-induced phase separation and use as an anode for Na-ion batteries. **2014**, 6, 21011-8	71
1864	Watching Microstructures in Action in Lithium-Ion Batteries. **2014**, 1, 329-331	5
1863	Nanoporous Polymer-Ceramic Composite Electrolytes for Lithium Metal Batteries. **2014**, 4, 1300654	199
1862	Highly reduced VOx nanotube cathode materials with ultra-high capacity for magnesium ion batteries. **2014**, 2, 20636-20641	37
1861	A high-energy room-temperature sodium-sulfur battery. **2014**, 26, 1261-5	446

1860	Hollow □Fe2O3 Nanospheres Synthesized Using a Carbon Template as Novel Anode Materials for Na-Ion Batteries. **2014**, 1, 1636-1639	29
1859	Reduction potential predictions of some aromatic nitrogen-containing molecules. **2014**, 4, 57442-57451	44
1858	Mesoporous NaTi2(PO4)3/CMK-3 nanohybrid as anode for long-life Na-ion batteries. **2014**, 2, 20659-20666	76
1857	Control of Carbon Nanotube Electronic Properties by Lithium Cation Intercalation. **2014**, 5, 4129-33	17
1856	An Ultrastable Anode for Long-Life Room-Temperature Sodium-Ion Batteries. **2014**, 126, 9109-9115	34
1855	Rechargeable organic lithium-ion batteries using electron-deficient benzoquinones as positive-electrode materials with high discharge voltages. **2014**, 2, 19347-19354	87
1854	Research development on sodium-ion batteries. **2014**, 114, 11636-82	3941
1853	Single nanowire electrode electrochemistry of silicon anode by in situ atomic force microscopy: solid electrolyte interphase growth and mechanical properties. **2014**, 6, 20317-23	80
1852	Electrolytes and interphases in Li-ion batteries and beyond. **2014**, 114, 11503-618	2847
1851	Synthesis, Structure and Li Ion Conductivity of Garnet-like Li5+2xLa3Nb2-xSmxO12(0 □x □0.7). **2014**, 161, A2060-A2067	20
1850	Selection and Performance-Degradation Modeling of LiMO$_{2}$/Li$_{4}$Ti$_{5}$O $_{12}$ and LiFePO $_{4}$/C Battery Cells as Suitable Energy Storage Systems for Grid Integration With. **2014**, 5, 90-101	91
1849	Assembly of MnO2 nanowires@reduced graphene oxide hybrid with an interconnected structure for a high performance lithium ion battery. **2014**, 4, 54416-54421	16
1848	Branch-structured Bi2S3□CNT hybrids with improved lithium storage capability. **2014**, 2, 13854-13858	70
1847	Gyroidal mesoporous multifunctional nanocomposites via atomic layer deposition. **2014**, 6, 8736-42	19
1846	Morphology and performance of poly(ether sulfone)/sulfonated poly(ether ether ketone) blend porous membranes for vanadium flow battery application. **2014**, 4, 40400-40406	28
1845	In situ polyaniline modified cathode material Li[Li0.2Mn0.54Ni0.13Co0.13]O2 with high rate capacity for lithium ion batteries. **2014**, 2, 18613-18623	71
1844	A metal-free and all-organic redox flow battery with polythiophene as the electroactive species. **2014**, 2, 19994-19998	82
1843	Mn3O4 hollow spheres for lithium-ion batteries with high rate and capacity. **2014**, 2, 4627-4632	136

1842	Multifunctional dual Na3V2(PO4)2F3 cathode for both lithium-ion and sodium-ion batteries. **2014**, 4, 11375-11383	73
1841	Electrochemical Nanowire Devices for Energy Storage. **2014**, 13, 10-15	7
1840	Hierarchical mesoporous CoS2 microspheres: Morphology-controlled synthesis and their superior pseudocapacitive properties. **2014**, 149, 285-292	37
1839	Na[Ni0.4Fe0.2Mn0.4□Tix]O2: a cathode of high capacity and superior cyclability for Na-ion batteries. **2014**, 2, 17268-17271	73
1838	Polyhedral LiNi0.5Mn1.5O4 with excellent electrochemical properties for lithium-ion batteries. **2014**, 2, 12835-12848	64
1837	Influence of carbon pore size on the discharge capacity of Li□2 batteries. **2014**, 2, 12433-12441	125
1836	One-pot hydrothermal synthesis of peony-like Ag/Ag(0.68)V2O5 hybrid as high-performance anode and cathode materials for rechargeable lithium batteries. **2014**, 6, 5239-44	14
1835	Facile hydrothermal synthesis of CuFeO2 hexagonal platelets/rings and graphene composites as anode materials for lithium ion batteries. **2014**, 50, 10151-4	51
1834	Advanced Se□ nanocomposites: a bifunctional electrode material for both Li□e and Li-ion batteries. **2014**, 2, 13293	114
1833	Activated Carbon Spheres as a Flowable Electrode in Electrochemical Flow Capacitors. **2014**, 161, A1078-A1083	58
1832	Phase Transformation Dynamics in Porous Battery Electrodes. **2014**, 146, 89-97	74
1831	Polysulfide flow batteries enabled by percolating nanoscale conductor networks. **2014**, 14, 2210-8	178
1830	A unique hollow Li3VO4/carbon nanotube composite anode for high rate long-life lithium-ion batteries. **2014**, 6, 11072-7	77
1829	Investigation of the redox chemistry of anthraquinone derivatives using density functional theory. **2014**, 118, 8852-60	102
1828	Recycling chicken eggshell membranes for high-capacity sodium battery anodes. **2014**, 4, 50950-50954	24
1827	MOF-derived porous ZnO/ZnFe□□/C octahedra with hollow interiors for high-rate lithium-ion batteries. **2014**, 26, 6622-8	596
1826	Single particle nanomechanics in operando batteries via lensless strain mapping. **2014**, 14, 5123-7	78
1825	High-quality Prussian blue crystals as superior cathode materials for room-temperature sodium-ion batteries. **2014**, 7, 1643-1647	691

1824	Ultrathin spinel membrane-encapsulated layered lithium-rich cathode material for advanced Li-ion batteries. **2014**, 14, 3550-5	197
1823	Preparation of porous and hollow Fe3O4@C spheres as an efficient anode material for a high-performance Li-ion battery. **2014**, 4, 6430	43
1822	Facile synthesis of nitrogen-doped carbon derived from polydopamine-coated Li3V2(PO4)3 as cathode material for lithium-ion batteries. **2014**, 4, 38791-38796	31
1821	Array geometry dictates electrochemical performance of Ge nanowire lithium ion battery anodes. **2014**, 2, 16770-16785	28
1820	Interface layer formation in solid polymer electrolyte lithium batteries: an XPS study. **2014**, 2, 7256-7264	197
1819	Lithium and sodium battery cathode materials: computational insights into voltage, diffusion and nanostructural properties. **2014**, 43, 185-204	765
1818	Properties investigation of sulfonated poly(ether ether ketone)/polyacrylonitrile acid-base blend membrane for vanadium redox flow battery application. **2014**, 6, 18885-93	137
1817	A promising Na3V2(PO4)3 cathode for use in the construction of high energy batteries. **2014**, 16, 3055-61	77
1816	From biomolecule to Na3V2(PO4)3/nitrogen-decorated carbon hybrids: highly reversible cathodes for sodium-ion batteries. **2014**, 2, 18606-18612	63
1815	Real-time materials evolution visualized within intact cycling alkaline batteries. **2014**, 2, 2757-2764	45
1814	Improved cycle stability and high security of Li-B alloy anode for lithiumSulfur battery. **2014**, 2, 11660-11665	129
1813	In situ distributed diagnostics of flowable electrode systems: resolving spatial and temporal limitations. **2014**, 16, 18241-52	32
1812	Flexible and stable lithium ion batteries based on three-dimensional aligned carbon nanotube/silicon hybrid electrodes. **2014**, 2, 9306	61
1811	A Convenient Approach to Mo6S8Chevrel Phase Cathode for Rechargeable Magnesium Battery. **2014**, 161, A593-A598	58
1810	Nitrogen-enriched electrospun porous carbon nanofiber networks as high-performance free-standing electrode materials. **2014**, 2, 19678-19684	143
1809	In Situ Growth of Mesoporous NiO Nanoplates on Graphene Matrix as Anode Material for Lithium-Ion Batteries. **2014**, 905, 56-60	
1808	Material selection and optimization for highly stable composite bipolar plates in vanadium redox flow batteries. **2014**, 2, 15808-15815	23
1807	A maize-like FePO4@MCNT nanowire composite for sodium-ion batteries via a microemulsion technique. **2014**, 2, 7221-7228	46

1806	High rate sodium ion insertion into core-shell nanoparticles of Prussian blue analogues. **2014**, 50, 1353-5	81
1805	Mn0.5Co0.5Fe2O4 nanoparticles highly dispersed in porous carbon microspheres as high performance anode materials in Li-ion batteries. **2014**, 6, 6805-11	14
1804	The prospect of high temperature solid state energy conversion to reduce the cost of concentrated solar power. **2014**, 7, 1819-1828	30
1803	A new electrode material for rechargeable sodium batteries: P2-type Na2/3[Mg0.28Mn0.72]O2 with anomalously high reversible capacity. **2014**, 2, 16851-16855	227
1802	Synthesis and characterization of F-doped nanocrystalline Li4Ti5O12/C compounds for lithium-ion batteries. **2014**, 4, 41968-41975	25
1801	Bulk Ti2Nb10O29 as long-life and high-power Li-ion battery anodes. **2014**, 2, 17258-17262	94
1800	Ionic liquid electrolytes for high-voltage rechargeable Li/LiNi0.5Mn1.5O4 cells. **2014**, 2, 3613	26
1799	Combination of a SnO2 hybrid anode and a tubular mesoporous carbon cathode in a high energy density non-aqueous lithium ion capacitor: preparation and characterisation. **2014**, 2, 6549	85
1798	Hollow polyaniline sphere@sulfur composites for prolonged cycling stability of lithium–sulfur batteries. **2014**, 2, 10350-10354	101
1797	One-pot scalable synthesis of CuO/CuFe2O4/graphene composites as anode materials for lithium-ion batteries with enhanced lithium storage properties. **2014**, 2, 13892	44
1796	Organo-sulfur molecules enable iron-based battery electrodes to meet the challenges of large-scale electrical energy storage. **2014**, 7, 2753	42
1795	Correlation between the local scale structure and the electrochemical properties in lithium orthosilicate cathode materials. **2014**, 2, 17867-17874	6
1794	Tuning electrochemical performance of Si-based anodes for lithium-ion batteries by employing atomic layer deposition alumina coating. **2014**, 2, 11417-11425	34
1793	A flexible and binder-free reduced graphene oxide/Na2/3[Ni1/3Mn2/3]O2 composite electrode for high-performance sodium ion batteries. **2014**, 2, 6723-6726	46
1792	A low temperature iron molten air battery. **2014**, 2, 10577-10580	20
1791	In situ synthesis of SnO2 nanoparticles encapsulated in micro/mesoporous carbon foam as a high-performance anode material for lithium ion batteries. **2014**, 2, 18367-18374	56
1790	Facile synthesis of a mesoporous Co3O4 network for Li-storage via thermal decomposition of an amorphous metal complex. **2014**, 6, 12476-81	50
1789	Facile fabrication of pompon-like hierarchical CuO hollow microspheres for high-performance lithium-ion batteries. **2014**, 2, 1224-1229	72

1788	Layer-by-layer self-assembly of Nafion[CSPWA] composite membranes with suppressed vanadium ion crossover for vanadium redox flow battery applications. **2014**, 4, 24831-24837	63
1787	Nanosized MnRu binary oxides as effective bifunctional cathode electrocatalysts for rechargeable LiO2 batteries. **2014**, 2, 1509-1514	73
1786	TiO2@C composite nanospheres with an optimized homogeneous structure for lithium-ion batteries. **2014**, 38, 3722-3728	11
1785	Long-life Na-O batteries with high energy efficiency enabled by electrochemically splitting NaO at a low overpotential. **2014**, 16, 15646-52	127
1784	Hierarchical foam of exposed ultrathin nickel nanosheets supported on chainlike Ni-nanowires and the derivative chalcogenide for enhanced pseudocapacitance. **2014**, 6, 2618-23	68
1783	Strongly Coupled Bi2S3@CNT Hybrids for Robust Lithium Storage. **2014**, 4, 1400798	135
1782	Free-standing hierarchically sandwich-type tungsten disulfide nanotubes/graphene anode for lithium-ion batteries. **2014**, 14, 5899-904	243
1781	Ultrasonic-assisted co-precipitation to synthesize lithium-rich cathode Li1.3Ni0.21Mn0.64O2+d materials for lithium-ion batteries. **2014**, 272, 922-928	19
1780	Energetic aqueous rechargeable sodium-ion battery based on Na2 CuFe(CN)6 -NaTi2 (PO4)3 intercalation chemistry. **2014**, 7, 407-11	182
1779	Composite porous membranes with an ultrathin selective layer for vanadium flow batteries. **2014**, 50, 4596-9	48
1778	Synthesis of NASICON-type structured NaTi2(PO4)3-graphene nanocomposite as an anode for aqueous rechargeable Na-ion batteries. **2014**, 6, 6328-34	135
1777	MnO2 nanoflakes anchored on reduced graphene oxide nanosheets as high performance anode materials for lithium-ion batteries. **2014**, 4, 30150-30155	19
1776	Nano-sized Fe3O4/carbon as anode material for lithium ion battery. **2014**, 148, 699-704	10
1775	Na3V2(PO4)3@C core shell nanocomposites for rechargeable sodium-ion batteries. **2014**, 2, 8668-8675	287
1774	The role of FeS in initial activation and performance degradation of Na NiCl2 batteries. **2014**, 272, 398-403	25
1773	Heterolayered, one-dimensional nanobuilding block mat batteries. **2014**, 14, 5677-86	99
1772	Highly Reversible Room-Temperature Sulfur/Long-Chain Sodium Polysulfide Batteries. **2014**, 5, 1943-7	114
1771	An Aqueous Sodium Ion Hybrid Battery Incorporating an Organic Compound and a Prussian Blue Derivative. **2014**, 4, 1400133	93

1770	Rational design of MnO/carbon nanopeapods with internal void space for high-rate and long-life li-ion batteries. **2014**, 8, 6038-46	388
1769	Synthesis of hierarchically porous SnO(2) microspheres and performance evaluation as li-ion battery anode by using different binders. **2014**, 6, 16556-64	59
1768	Derivatized cardo-polyetherketone anion exchange membranes for all-vanadium redox flow batteries. **2014**, 2, 6605-6615	65
1767	Investigation of the Electrocatalytic Activity of Rhodium Sulfide for Hydrogen Evolution and Hydrogen Oxidation. **2014**, 145, 224-230	20
1766	High performance batteries based on hybrid magnesium and lithium chemistry. **2014**, 50, 9644-6	132
1765	Study on the capacity fading of pristine and FePO 4 coated LiNi 1/3 Co 1/3 Mn 1/3 O 2 by Electrochemical and Magnetical techniques. **2014**, 148, 26-32	10
1764	Rapid low-temperature synthesis of mesoporous nanophase ZnFe2O4 with enhanced lithium storage properties for Li-ion batteries. **2014**, 4, 49212-49218	44
1763	A hybrid supercapacitor based on flower-like Co(OH)2 and urchin-like VN electrode materials. **2014**, 2, 12724-12732	276
1762	High Capacity O3-Type Na[Li0.05(Ni0.25Fe0.25Mn0.5)0.95]O2 Cathode for Sodium Ion Batteries. **2014**, 26, 6165-6171	148
1761	Green energy storage chemistries based on neutral aqueous electrolytes. **2014**, 2, 10739-10755	100
1760	One-Pot synthesized bicontinuous hierarchical Li3V2(PO4)3/C mesoporous nanowires for high-rate and ultralong-life lithium-ion batteries. **2014**, 14, 1042-8	216
1759	Exotic reaction front migration and stage structure in lithiated silicon nanowires. **2014**, 8, 8249-54	18
1758	Review of energy storage technologies for sustainable power networks. **2014**, 8, 74-91	347
1757	Facile assembly of Ni-Co hydroxide nanoflakes on carbon nanotube network with highly electrochemical capacitive performance. **2014**, 6, 19630-7	76
1756	Lithium-antimony-lead liquid metal battery for grid-level energy storage. **2014**, 514, 348-50	234
1755	Hollow Co(0.85)Se nanowire array on carbon fiber paper for high rate pseudocapacitor. **2014**, 6, 18844-52	131
1754	Visualizing the roles of graphene for excellent lithium storage. **2014**, 2, 17808-17814	44
1753	Sn4+x P3 @ amorphous Sn-P composites as anodes for sodium-ion batteries with low cost, high capacity, long life, and superior rate capability. **2014**, 26, 4037-42	278

1752	A dispersion-corrected DFT study on adsorption of battery active materials anthraquinone and its derivatives on monolayer graphene and h-BN. **2014**, 2, 8910-8917	90
1751	An Li-rich oxide cathode material with mosaic spinel grain and a surface coating for high performance Li-ion batteries. **2014**, 2, 15640	65
1750	Degradation mechanism of sulfonated poly(ether ether ketone) (SPEEK) ion exchange membranes under vanadium flow battery medium. **2014**, 16, 19841-7	122
1749	Effect of the length and surface area on electrochemical performance of cobalt oxide nanowires for alkaline secondary battery application. **2014**, 272, 703-710	12
1748	Structure optimization of Prussian blue analogue cathode materials for advanced sodium ion batteries. **2014**, 50, 13377-80	161
1747	In situ transmission electron microscopy observation of electrochemical sodiation of individual CoSE filled carbon nanotubes. **2014**, 8, 3620-7	69
1746	Hierarchical structure LiFePO4@C synthesized by oleylamine-mediated method for low temperature applications. **2014**, 2, 4870-4873	25
1745	Lithium cobalt oxide coated lithium zinc titanate anode material with an enhanced high rate capability and long lifespan for lithium-ion batteries. **2014**, 144, 76-84	38
1744	Corn protein-derived nitrogen-doped carbon materials with oxygen-rich functional groups: a highly efficient electrocatalyst for all-vanadium redox flow batteries. **2014**, 7, 3727-3735	184
1743	3D graphene supported MoO2 for high performance binder-free lithium ion battery. **2014**, 6, 9839-45	74
1742	Surface structural conversion and electrochemical enhancement by heat treatment of chemical pre-delithiation processed lithium-rich layered cathode material. **2014**, 268, 683-691	62
1741	Effect of different carbon sources on electrochemical properties of Li2ZnTi3O8/C anode material in lithium-ion batteries. **2014**, 613, 267-274	42
1740	Phase stability and its impact on the electrochemical performance of VOPO4 and LiVOPO4. **2014**, 2, 12330	42
1739	Development and perspective in vanadium flow battery modeling. **2014**, 132, 254-266	80
1738	Lithium-active molybdenum trioxide coated LiNi0.5Co0.2Mn0.3O2 cathode material with enhanced electrochemical properties for lithium-ion batteries. **2014**, 269, 747-754	71
1737	Sodiation via heterogeneous disproportionation in FeF2 electrodes for sodium-ion batteries. **2014**, 8, 7251-9	74
1736	Maghemite nanoparticles on electrospun CNFs template as prospective lithium-ion battery anode. **2014**, 6, 1951-8	90
1735	Micro-/nanostructured Co3O4 anode with enhanced rate capability for lithium-ion batteries. **2014**, 6, 7236-43	191

1734	One-Pot Spray-Dried Graphene Sheets-Encapsulated Nano-Li4Ti5O12Microspheres for a Hybrid BatCap System. **2014**, 53, 10849-10857	51
1733	The transfer behavior of different ions across anion and cation exchange membranes under vanadium flow battery medium. **2014**, 271, 1-7	47
1732	Intercalated SiO2&Si/Carbon Composite for High Capacity Li Ion Battery Anodes. **2014**, 141, 226-233	12
1731	Morphology control of zinc regeneration for zinc□air fuel cell and battery. **2014**, 271, 65-75	77
1730	Self-adaptive strain-relaxation optimization for high-energy lithium storage material through crumpling of graphene. **2014**, 5, 4565	128
1729	Role of Ligand-to-Metal Charge Transfer in O3-Type NaFeO2□NaNiO2Solid Solution for Enhanced Electrochemical Properties. **2014**, 118, 2970-2976	110
1728	Stress analyses for the glass joints of contemporary sodium sulfur batteries. **2014**, 269, 773-782	13
1727	Ti□□MXene as a high capacity electrode material for metal (Li, Na, K, Ca) ion batteries. **2014**, 6, 11173-9	847
1726	Maximizing Energetic Efficiency in Flow Batteries Utilizing Non-Newtonian Fluids. **2014**, 161, A486-A496	65
1725	Possible application of 2D-boron sheets as anode material in lithium ion battery: A DFT and AIMD study. **2014**, 2, 3856	56
1724	Investigation of the Reasons for Capacity Fading in Li-Ion Battery Cells. **2014**, 161, A1672-A1680	43
1723	Polyphenylenes and the related copolymer membranes for electrochemical device applications. **2014**, 5, 6121-6141	30
1722	The economic viability of battery storage for residential solar photovoltaic systems □A review and a simulation model. **2014**, 39, 1101-1118	326
1721	High-performance sodium-ion batteries and sodium-ion pseudocapacitors based on MoS(2) /graphene composites. **2014**, 20, 9607-12	181
1720	Negative electrodes for Na-ion batteries. **2014**, 16, 15007-28	494
1719	Stable 4 V-class bicontinuous cathodes by hierarchically porous carbon coating on Li3V2(PO4)3 nanospheres. **2014**, 6, 12426-33	19
1718	Remarkably Improved Electrode Performance of Bulk MnS by Forming a Solid Solution with FeS □ Understanding the Li Storage Mechanism. **2014**, 24, 5557-5566	45
1717	Stable graphene-polyoxometalate nanomaterials for application in hybrid supercapacitors. **2014**, 16, 20411-4	76

1716	Identifying pseudocapacitance of Fe2O3 in an ionic liquid and its application in asymmetric supercapacitors. **2014**, 2, 14550-14556	91
1715	Organic dicarboxylate negative electrode materials with remarkably small strain for high-voltage bipolar batteries. **2014**, 53, 11467-72	107
1714	High performance LiMn2O4 cathode materials grown with epitaxial layered nanostructure for Li-ion batteries. **2014**, 14, 993-9	202
1713	Facile synthesis route of porous MnCo2O4 and CoMn2O4 nanowires and their excellent electrochemical properties in supercapacitors. **2014**, 2, 16480-16488	239
1712	Energy storage materials synthesized from ionic liquids. **2014**, 53, 13342-59	198
1711	Li-Ion Storage Performance of Carbon-Coated MnAlO Composite Oxides. **2014**, 118, 23559-23566	7
1710	Efficient high active mass paper-based energy-storage devices containing free-standing additive-less polypyrrole–nanocellulose electrodes. **2014**, 2, 7711-7716	56
1709	Interpenetrated Gel Polymer Binder for High-Performance Silicon Anodes in Lithium-ion Batteries. **2014**, 24, 5904-5910	354
1708	Aluminum manganese oxides with mixed crystal structure: high-energy-density cathodes for rechargeable sodium batteries. **2014**, 7, 1870-5	39
1707	A lithium anode protection guided highly-stable lithium-sulfur battery. **2014**, 50, 14209-12	316
1706	An SbOx/Reduced Graphene Oxide Composite as a High-Rate Anode Material for Sodium-Ion Batteries. **2014**, 118, 23527-23534	93
1705	Fabrication of LiCoO2 Crystal Layers Using a Flux Method and Their Application for Additive-Free Lithium-Ion Rechargeable Battery Cathodes. **2014**, 14, 1882-1887	29
1704	CaO-Based Energy and CO2 Storage System for the Flexibilization of an IGCC Plant with Carbon Capture. **2014**, 53, 12032-12043	9
1703	A new organic–inorganic hybrid electrolyte based on polyacrylonitrile, polyether diamine and alkoxysilanes for lithium ion batteries: synthesis, structural properties, and electrochemical characterization. **2014**, 4, 13293-13303	11
1702	Aqueous rechargeable Li and Na ion batteries. **2014**, 114, 11788-827	929
1701	Electroactive-Zone Extension in Flow-Battery Stacks. **2014**, 147, 460-469	27
1700	Characterization of sulfonated poly(ether ether ketone)/poly(vinylidene fluoride-co-hexafluoropropylene) composite membrane for vanadium redox flow battery application. **2014**, 272, 427-435	55
1699	Ultralong Cycle Life Sodium-Ion Battery Anodes Using a Graphene-Templated Carbon Hybrid. **2014**, 118, 22426-22431	63

1698	Investigating local degradation and thermal stability of charged nickel-based cathode materials through real-time electron microscopy. **2014**, 6, 15140-7	76
1697	Binding energy and work function of organic electrode materials phenanthraquinone, pyromellitic dianhydride and their derivatives adsorbed on graphene. **2014**, 6, 16267-75	77
1696	High-performance supercapacitors based on an ionic liquid-derived nanofibrillated mesoporous carbon. **2014**, 18, 2419-2424	23
1695	A 3.5 V lithium-iodine hybrid redox battery with vertically aligned carbon nanotube current collector. **2014**, 14, 1085-92	119
1694	Electrochemical and Corrosion Stability of Nanostructured Silicon by Graphene Coatings: Toward High Power Porous Silicon Supercapacitors. **2014**, 118, 10893-10902	66
1693	Porous carbon materials for Li□S batteries based on resorcinol□formaldehyde resin with inverse opal structure. **2014**, 261, 363-370	35
1692	Layered SnS2-reduced graphene oxide composite--a high-capacity, high-rate, and long-cycle life sodium-ion battery anode material. **2014**, 26, 3854-9	679
1691	In situ growth of mesoporous Co3O4 nanoparticles on graphene as a high-performance anode material for lithium-ion batteries. **2014**, 119, 12-15	44
1690	Energy-Storage-Based Low-Frequency Oscillation Damping Control Using Particle Swarm Optimization and Heuristic Dynamic Programming. **2014**, 29, 2539-2548	101
1689	Li(+)-conductive polymer-embedded nano-Si particles as anode material for advanced Li-ion batteries. **2014**, 6, 3508-12	72
1688	Single-walled carbon nanohorns with unique horn-shaped structures as a scaffold for lithium□sulfur batteries. **2014**, 4, 28636-28639	8
1687	Investigation of the intercalation of polyvalent cations (Mg2+, Zn2+) into □MnO2 for rechargeable aqueous battery. **2014**, 116, 404-412	179
1686	Improved cycle stability of Fe□air solid state oxide rechargeable battery using LaGaO3-based oxide ion conductor. **2014**, 262, 310-315	24
1685	Inverse opal-inspired, nanoscaffold battery separators: a new membrane opportunity for high-performance energy storage systems. **2014**, 14, 4438-48	68
1684	Nanometer-scale Sn coatings improve the performance of silicon nanowire LIB anodes. **2014**, 2, 11261	53
1683	Synthesis of hydrogenated TiO2□educed-graphene oxide nanocomposites and their application in high rate lithium ion batteries. **2014**, 2, 9150-9155	35
1682	Cobalt hexacyanoferrate nanoparticles as a high-rate and ultra-stable supercapacitor electrode material. **2014**, 6, 11007-12	141
1681	Carbon materials for the positive electrode in all-vanadium redox flow batteries. **2014**, 78, 220-230	72

1680	Comparative Electrocatalytic Performance of Single-Walled and Multiwalled Carbon Nanotubes for Zinc Bromine Redox Flow Batteries. **2014**, 118, 14795-14804	71
1679	Screening possible solid electrolytes by calculating the conduction pathways using Bond Valence method. **2014**, 57, 1526-1536	29
1678	Materials science aspects of zinc□air batteries: a review. **2014**, 3, 1	144
1677	Crystal structure and multicomponent effects in Li1+xMn2□□AlyO4 cathode materials for Li-ion batteries. **2014**, 262, 104-111	43
1676	A Hybrid Redox-Supercapacitor System with Anionic Catholyte and Cationic Anolyte. **2014**, 161, A1090-A1093	30
1675	Implantable Sensors. **2014**, 415-465	10
1674	Isolated boron and nitrogen sites on porous graphitic carbon synthesized from nitrogen-containing chitosan for supercapacitors. **2014**, 7, 1637-46	105
1673	A reversible Br2/Br□ redox couple in the aqueous phase as a high-performance catholyte for alkali-ion batteries. **2014**, 7, 1990-1995	119
1672	Crystalline Li3V6O16 rods as high-capacity anode materials for aqueous rechargeable lithium batteries (ARLB). **2014**, 4, 28601-28605	11
1671	Nonequilibrium structural dynamics of nanoparticles in LiNi(1/2)Mn(3/2)O4 cathode under operando conditions. **2014**, 14, 5295-300	56
1670	Assembly of Na3V2(PO4)3 nanoparticles confined in a one-dimensional carbon sheath for enhanced sodium-ion cathode properties. **2014**, 20, 12636-40	63
1669	Recycling of Spent Lithium-Ion Battery: A Critical Review. **2014**, 44, 1129-1165	483
1668	Facile and Green Preparation for the Formation of MoO2-GO Composites as Anode Material for Lithium-Ion Batteries. **2014**, 118, 24890-24897	52
1667	Electroactive Organic Compounds as Anode-Active Materials for Solar Rechargeable Redox Flow Battery in Dual-Phase Electrolytes. **2014**, 161, A736-A741	38
1666	Nanoscale morphological and chemical changes of high voltage lithium-manganese rich NMC composite cathodes with cycling. **2014**, 14, 4334-41	146
1665	Lithium ion battery chemistries from renewable energy storage to automotive and back-up power applications □An overview. **2014**,	50
1664	Sustainable electrical energy storage through the ferrocene/ferrocenium redox reaction in aprotic electrolyte. **2014**, 53, 11036-40	118
1663	Small things make a big difference: binder effects on the performance of Li and Na batteries. **2014**, 16, 20347-59	276

1662	A review of molecular modelling of electric double layer capacitors. **2014**, 16, 6519-38	168
1661	Electrochemically stable cathode current collectors for rechargeable magnesium batteries. **2014**, 2, 2473-2477	71
1660	Copper-doped Li4Ti5O12/carbon nanofiber composites as anode for high-performance sodium-ion batteries. **2014**, 272, 860-865	73
1659	Hydrothermal fabrication of MnCO@rGO composite as an anode material for high-performance lithium ion batteries. **2014**, 53, 9228-34	78
1658	Spatiotemporal changes of the solid electrolyte interphase in lithium-ion batteries detected by scanning electrochemical microscopy. **2014**, 53, 10531-5	78
1657	A comparison of carbon supports in MnO2/C supercapacitors. **2014**, 4, 31416	21
1656	Layered P2/O3 Intergrowth Cathode: Toward High Power Na-Ion Batteries. **2014**, 4, 1400458	146
1655	Synergistic Na-storage reactions in Sn4P3 as a high-capacity, cycle-stable anode of Na-ion batteries. **2014**, 14, 1865-9	353
1654	Enhancement of high voltage cycling performance and thermal stability of LiNi1/3Co1/3Mn1/3O2 cathode by use of boron-based additives. **2014**, 263, 146-151	40
1653	Solid-state synthesis of submicron-sized Li4Ti5O12/Li2TiO3 composites with rich grain boundaries for lithium ion batteries. **2014**, 266, 114-120	66
1652	Practical thermodynamic quantities for aqueous vanadium- and iron-based flow batteries. **2014**, 269, 962-974	11
1651	Halogen-free boron based electrolyte solution for rechargeable magnesium batteries. **2014**, 248, 690-694	24
1650	Templated assembly of photoswitches significantly increases the energy-storage capacity of solar thermal fuels. **2014**, 6, 441-7	201
1649	Graphenal polymers for energy storage. **2014**, 10, 2122-35	29
1648	Toward a Molecular Understanding of Energetics in Li–S Batteries Using Nonaqueous Electrolytes: A High-Level Quantum Chemical Study. **2014**, 118, 11545-11558	120
1647	Materials and structures for stretchable energy storage and conversion devices. **2014**, 26, 3592-617	318
1646	Effects of the graphene content and the treatment temperature on the supercapacitive properties of VOx/graphene nanocomposites. **2014**, 449, 148-156	19
1645	Controllable synthesis Co3O4 nanorods and nanobelts and their excellent lithium storage performance. **2014**, 32, 88-93	25

1644	A High Power Density Dual-electrolyte Lithium-Silver Battery with Celgard® 2325 Separator. **2014**, 116, 429-433	8
1643	Predicting capacity of hard carbon anodes in sodium-ion batteries using porosity measurements. **2014**, 76, 165-174	233
1642	One-dimensional SiOC/C composite nanofibers as binder-free anodes for lithium-ion batteries. **2014**, 254, 33-38	37
1641	One-step synthesis and effect of heat-treatment on the structure and electrochemical properties of LiNi0.5Mn1.5O4 cathode material for lithium-ion batteries. **2014**, 133, 515-521	14
1640	Electrospun nanofiber of hybrid manganese oxides for supercapacitor: Relevance to mixed inorganic interfaces. **2014**, 255, 335-340	54
1639	A unified open-circuit-voltage model of lithium-ion batteries for state-of-charge estimation and state-of-health monitoring. **2014**, 258, 228-237	186
1638	Microwave- or conventional® hydrothermal synthesis of Co-based materials for electrochemical energy storage. **2014**, 40, 8183-8188	8
1637	Enhancement in cycle life of metallic lithium electrodes protected with Fp-silanes. **2014**, 254, 241-248	8
1636	A three-dimensional model for thermal analysis in a vanadium flow battery. **2014**, 113, 1675-1685	66
1635	Layer structured ®-FeSe: A potential anode material for lithium storage. **2014**, 38, 124-127	54
1634	Dual function of quaternary ammonium in Zn/Br redox flow battery: Capturing the bromine and lowering the charge transfer resistance. **2014**, 127, 397-402	78
1633	Conventional- and microwave-hydrothermal synthesis of LiMn2O4: Effect of synthesis on electrochemical energy storage performances. **2014**, 40, 3155-3163	23
1632	Uninterrupted renewable power through chemical storage cycles. **2014**, 5, 29-36	15
1631	Finite element analysis study on the thermomechanical stability of thermal compression bonding (TCB) joints in tubular sodium sulfur cells. **2014**, 250, 1-14	20
1630	Graphene-Supported NaTi2(PO4)3as a High Rate Anode Material for Aqueous Sodium Ion Batteries. **2014**, 161, A1181-A1187	88
1629	Symmetric Aqueous Rechargeable Lithium Battery Using Na1.16V3O8Nanobelts Electrodes for Safe High Volume Energy Storage Applications. **2014**, 161, A256-A263	19
1628	Electrospun P2-type Na(2/3)(Fe(1/2)Mn(1/2))O2 hierarchical nanofibers as cathode material for sodium-ion batteries. **2014**, 6, 8953-8	116
1627	Renewable hydrogen generation from a dual-circuit redox flow battery. **2014**, 7, 2350-2358	76

1626	An Inexpensive Aqueous Flow Battery for Large-Scale Electrical Energy Storage Based on Water-Soluble Organic Redox Couples. **2014**, 161, A1371-A1380	287
1625	A long-life lithium-ion battery with a highly porous TiNb2O7 anode for large-scale electrical energy storage. **2014**, 7, 2220-2226	257
1624	An ultrastable anode for long-life room-temperature sodium-ion batteries. **2014**, 53, 8963-9	116
1623	Analysis of Concentration Polarization Using UV-Visible Spectrophotometry in a Vanadium Redox Flow Battery. **2014**, 161, A1291-A1296	18
1622	A carbon-free, precious-metal-free, high-performance O2 electrode for regenerative fuel cells and metal–air batteries. **2014**, 7, 2017	121
1621	Effect of carbon matrix dimensions on the electrochemical properties of Na3V2(PO4)3 nanograins for high-performance symmetric sodium-ion batteries. **2014**, 26, 3545-53	402
1620	Composite manganese oxide percolating networks as a suspension electrode for an asymmetric flow capacitor. **2014**, 6, 8886-93	88
1619	Ionic liquids for energy, materials, and medicine. **2014**, 50, 9228-50	396
1618	Contribution to the understanding of capacity fading in graphene nanosheets acting as an anode in full Li-ion batteries. **2014**, 6, 3290-8	37
1617	Technologies for extending zinc–air battery's cyclelife: A review. **2014**, 128, 315-324	311
1616	Flexible free-standing graphene-like film electrode for supercapacitors by electrophoretic deposition and electrochemical reduction. **2014**, 24, 1425-1433	14
1615	Magnesium(II) bis(trifluoromethane sulfonyl) imide-based electrolytes with wide electrochemical windows for rechargeable magnesium batteries. **2014**, 6, 4063-73	326
1614	Chemomechanics of acidic ionomers: Hydration isotherms and physical model. **2014**, 267, 692-699	13
1613	Fabrication and shape evolution of CoS2 octahedrons for application in supercapacitors. **2014**, 136, 550-556	117
1612	Facile synthesis of Rh-Pd alloy nanodendrites as highly active and durable electrocatalysts for oxygen reduction reaction. **2014**, 6, 7012-8	47
1611	Three-dimensional hierarchical pompon-like Co3O4 porous spheres for high-performance lithium-ion batteries. **2014**, 2, 13801-13804	70
1610	Heterogeneous branched core–shell SnO2–PANI nanorod arrays with mechanical integrity and three dimentional electron transport for lithium batteries. **2014**, 8, 196-204	127
1609	Hybrid material design for energy applications: impact of graphene and carbon nanotubes. **2014**, 86, 39-52	4

1608	Free-standing and binder-free sodium-ion electrodes based on carbon-nanotube decorated Li4Ti5O12 nanoparticles embedded in carbon nanofibers. **2014**, 4, 25220	24
1607	Li-ion and Na-ion insertion into size-controlled nickel hexacyanoferrate nanoparticles. **2014**, 4, 24955	30
1606	Finding the most suitable existing hydropower reservoirs for the development of pumped-storage schemes: An integrated approach. **2014**, 37, 502-508	54
1605	Towards understanding the rate capability of layered transition metal oxides LiNiyMnyCo1−2yO2. **2014**, 268, 106-112	35
1604	Enhanced lithium storage performance in three-dimensional porous SnO2-Fe2O3 composite anode films. **2014**, 136, 27-32	18
1603	Recent advances in the Si-based nanocomposite materials as high capacity anode materials for lithium ion batteries. **2014**, 17, 285-297	121
1602	The influence of compressed carbon felt electrodes on the performance of a vanadium redox flow battery. **2014**, 116, 447-452	74
1601	Desolvation and decomposition of metal (Mn, Co and Ni)–ethylene carbonate complexes: Relevance to battery performance. **2014**, 81, 548-550	8
1600	Electrolytes for lithium and lithium ion batteries: From synthesis of novel lithium borates and ionic liquids to development of novel measurement methods. **2014**, 42, 39-39	55
1599	Nonionic zeolite membrane as potential ion separator in redox-flow battery. **2014**, 450, 12-17	46
1598	Applications of carbon nanotubes in high performance lithium ion batteries. **2014**, 9, 351-369	39
1597	Nanowire Electrodes for Advanced Lithium Batteries. **2014**, 2,	16
1596	Nitrogen-doped carbons in Li–S batteries: materials design and electrochemical mechanism. **2014**, 2,	20
1595	Understanding and Overcoming the Challenges Posed by Electrode/Electrolyte Interfaces in Rechargeable Magnesium Batteries. **2014**, 2,	23
1594	Criticality of metals for electrochemical energy storage systems – Development towards a technology specific indicator. **2014**, 111, 191-200	16
1593	Energy Systems. 511-598	5
1592	Aus ionischen Flüssigkeiten hergestellte Materialien für die Energiespeicherung. **2014**, 126, 13558-13576	25
1591	Platinum and hybrid polyaniline–platinum surfaces for the electrocatalytic reduction of CO2. **2015**, 5, 319-325	5

1590 Long-range, low-cost electric vehicles enabled by robust energy storage. **2015**, 2, 1 21

1589 The Role of Sulfide Additives in Achieving Long Cycle Life Rechargeable Iron Electrodes in Alkaline Batteries. **2015**, 162, A1864-A1872 39

1588 Load levelling and loss reduction by ES in a primary distribution system with PV units. **2015**,

1587 Overview of Small Scale Electric Energy Storage Systems suitable for dedicated coupling with Renewable Micro Sources. **2015**,

1586 Bibliography. **2015**, 63-74

1585 Multiscale Study of Electrochemical Energy Systems. **2015**, 263-322

1584 SodiumSulfur Batteries. **2015**, 1-18

1583 Steric Effects on the Cyclability of Benzoquinone-type Organic Cathode Active Materials for Rechargeable Batteries. **2015**, 44, 1726-1728 13

1582 High-throughput design and optimization of fast lithium ion conductors by the combination of bond-valence method and density functional theory. **2015**, 5, 14227 88

1581 Flame treatment of graphene oxides: cost-effective production of nanoporous graphene electrode for Lithium-ion batteries. **2015**, 5, 17522 12

1580 Novel Flower-like Nickel Sulfide as an Efficient Electrocatalyst for Non-aqueous Lithium-Air Batteries. **2015**, 5, 18199 42

1579 Anion-Tunable Properties and Electrochemical Performance of Functionalized Ferrocene Compounds. **2015**, 5, 14117 49

1578 Heteroatom-Doped Carbon Nanotubes as Advanced Electrocatalysts for Oxygen Reduction Reaction. **2015**, 1-16 3

1577 Preparation of meta-stable phases of barium titanate by Sol-hydrothermal method. **2015**, 5, 117119 18

1576 Intercalated SiOC/graphene composites as anode material for li-ion batteries. **2015**, 278, 198-202 9

1575 Safer Electrolytes for Lithium-Ion Batteries: State of the Art and Perspectives. **2015**, 8, 2154-75 474

1574 Ultrafine Amorphous SnOx Embedded in Carbon Nanofiber/Carbon Nanotube Composites for Li-Ion and Na-Ion Batteries. **2015**, 25, 5222-5228 89

1573 Hetero-Nanonet Rechargeable Paper Batteries: Toward Ultrahigh Energy Density and Origami Foldability. **2015**, 25, 6029-6040 89

1572	Smart Hybrids of Zn2GeO4 Nanoparticles and Ultrathin g-C3N4 Layers: Synergistic Lithium Storage and Excellent Electrochemical Performance. **2015**, 25, 6858-6866	155
1571	Enabling prominent high-rate and cycle performances in one lithium-sulfur battery: designing permselective gateways for Li(+) transportation in Holey-CNT/S cathodes. **2015**, 27, 3774-81	84
1570	Design Considerations for Unconventional Electrochemical Energy Storage Architectures. **2015**, 5, 1402115	224
1569	In Situ Synthesis of a Hierarchical All-Solid-State Electrolyte Based on Nitrile Materials for High-Performance Lithium-Ion Batteries. **2015**, 5, 1500353	215
1568	Superionic Conduction of Sodium and Lithium in Anion-Mixed Hydroborates Na3BH4B12H12 and (Li0.7Na0.3)3BH4B12H12. **2015**, 5, 1501016	75
1567	Die Chemie der Redox-Flow-Batterien. **2015**, 127, 9912-9947	45
1566	Energy Storage Materials from Nature through Nanotechnology: A Sustainable Route from Reed Plants to a Silicon Anode for Lithium-Ion Batteries. **2015**, 127, 9768-9772	68
1565	The Chemistry of Redox-Flow Batteries. **2015**, 54, 9776-809	414
1564	Radical Compatibility with Nonaqueous Electrolytes and Its Impact on an All-Organic Redox Flow Battery. **2015**, 54, 8684-7	221
1563	Load frequency control for internconnected power system in-coordination with SSSC and RFB through AC/DC link. **2015**,	0
1562	Phase Diagram of the Li4GeS4Li3PS4 Quasi-Binary System Containing the Superionic Conductor Li10GeP2S12. **2015**, 98, 3352-3360	50
1561	Market convergence in the field of stationary energy storage systems. **2015**,	1
1560	Sulfur Atoms Bridging Few-Layered MoS2 with S-Doped Graphene Enable Highly Robust Anode for Lithium-Ion Batteries. **2015**, 5, 1501106	152
1559	Nickel-reiche Lithium-Übergangsmetall-Schichtverbindungen für Hochenergie-Lithiumionenakkumulatoren. **2015**, 127, 4518-4536	54
1558	Energy Storage Materials from Nature through Nanotechnology: A Sustainable Route from Reed Plants to a Silicon Anode for Lithium-Ion Batteries. **2015**, 54, 9632-6	214
1557	Green Template-Free Synthesis of Hierarchical Shuttle-Shaped Mesoporous ZnFe2 O4 Microrods with Enhanced Lithium Storage for Advanced Li-Ion Batteries. **2015**, 21, 13012-9	50
1556	Melt-polymerization of TEMPO methacrylates with nano carbons enables superior battery materials. **2015**, 8, 1692-6	44
1555	Combined Experimental and Computational Studies of a Na2 Ni1-x Cux Fe(CN)6 Cathode with Tunable Potential for Aqueous Rechargeable Sodium-Ion Batteries. **2015**, 21, 15686-91	16

1554	Mesoporous Carbon Nanofibers Embedded with MoS2 Nanocrystals for Extraordinary Li-Ion Storage. **2015**, 21, 18248-57	21
1553	Discharge performance of solid-state oxygen shuttle metal-air battery using Ca-stabilized ZrO2 electrolyte. **2015**, 8, 1264-9	7
1552	Design Principles for Heteroatom-Doped Carbon Nanomaterials as Highly Efficient Catalysts for Fuel Cells and Metal-Air Batteries. **2015**, 27, 6834-40	389
1551	Scalable Production of Edge-Functionalized Graphene Nanoplatelets via Mechanochemical Ball-Milling. **2015**, 25, 6961-6975	105
1550	Acacia Senegal-Inspired Bifunctional Binder for Longevity of Lithium-Sulfur Batteries. **2015**, 5, 1500878	190
1549	Catalysis of Vanadium Ion Redox Reactions on Carbonaceous Material with Metal-N4 Sites. **2015**, 7, 2305-2308	9
1548	Novel K3V2(PO4)3/C Bundled Nanowires as Superior Sodium-Ion Battery Electrode with Ultrahigh Cycling Stability. **2015**, 5, 1500716	140
1547	Electrochemically Stable Rechargeable Lithium-Sulfur Batteries with a Microporous Carbon Nanofiber Filter for Polysulfide. **2015**, 5, 1500738	226
1546	Superlattice Crystals-Mimic, Flexible/Functional Ceramic Membranes: Beyond Polymeric Battery Separators. **2015**, 5, 1500954	39
1545	Alkali-Ion Storage Behaviour in Spinel Lithium Titanate Electrodes. **2015**, 2, 1678-1681	3
1544	Polymer-Templated Mesoporous Li4Ti5O12 as a High-Rate and Long-Life Anode Material for Rechargeable Li-Ion Batteries. **2015**, 1, 415-421	18
1543	A nitrogen and sulfur dual-doped carbon derived from polyrhodanine@cellulose for advanced lithium-sulfur batteries. **2015**, 27, 6021-8	595
1542	Confined Sulfur in Microporous Carbon Renders Superior Cycling Stability in Li/S Batteries. **2015**, 25, 4312-4320	232
1541	High-Performance Olivine for Lithium Batteries: Effects of Ni/Co Doping on the Properties of LiFe-Ni-Co-PO4 Cathodes. **2015**, 25, 4032-4037	23
1540	Mechanistic Studies of Transition Metal-Terephthalate Coordination Complexes upon Electrochemical Lithiation and Delithiation. **2015**, 25, 4859-4866	51
1539	Advanced Graphene-Based Binder-Free Electrodes for High-Performance Energy Storage. **2015**, 27, 5264-79	130
1538	Mechanism and Kinetics of Li2S Precipitation in Lithium-Sulfur Batteries. **2015**, 27, 5203-9	455
1537	Prototype Sodium-Ion Batteries Using an Air-Stable and Co/Ni-Free O3-Layered Metal Oxide Cathode. **2015**, 27, 6928-33	398

1536	Graphene/sulfur hybrid nanosheets from a space-confined "sauna" reaction for high-performance lithium-sulfur batteries. **2015**, 27, 5936-42	106
1535	Superior Stable Self-Healing SnP3 Anode for Sodium-Ion Batteries. **2015**, 5, 1500174	175
1534	Neue Ans□ze zur direkten Verwendung elementaren Schwefels in der Synthese und Verarbeitung moderner Werkstoffe. **2015**, 127, 3298-3308	27
1533	Nanostructured Electrocatalysts for All-Vanadium Redox Flow Batteries. **2015**, 10, 2096-110	71
1532	Understanding of Surface Redox Behaviors of Li2MnO3 in Li-Ion Batteries: First-Principles Prediction and Experimental Validation. **2015**, 8, 3255-62	26
1531	Improved Electrochemical Performance of a ZnFe2O4 Nanoflake-Based Supercapacitor Electrode by Using Thiocyanate-Functionalized Ionic Liquid Electrolytes. **2015**, 2015, 5832-5838	24
1530	Electrochemically Nanostructured Polyvinylferrocene/Polypyrrole Hybrids with Synergy for Energy Storage. **2015**, 25, 4803-4813	54
1529	Understanding the Origin of Li2MnO3 Activation in Li-Rich Cathode Materials for Lithium-Ion Batteries. **2015**, 25, 7488-7496	104
1528	A low cost, high energy density, and long cycle life potassium-sulfur battery for grid-scale energy storage. **2015**, 27, 5915-22	127
1527	Stabilization of Insoluble Discharge Products by Facile Aniline Modification for High Performance Li-S Batteries. **2015**, 5, 1500268	43
1526	Development of Active Organic and Polymeric Materials for Batteries and Solar Cells: Introduction to Essential Characterization Techniques. **2015**, 5, 1500858	13
1525	Formation of Yolk-Shelled Ni□o Mixed Oxide Nanoprisms with Enhanced Electrochemical Performance for Hybrid Supercapacitors and Lithium Ion Batteries. **2015**, 5, 1500981	258
1524	A Novel High Capacity Positive Electrode Material with Tunnel-Type Structure for Aqueous Sodium-Ion Batteries. **2015**, 5, 1501005	127
1523	Anti-Ferroelectric Ceramics for High Energy Density Capacitors. **2015**, 8, 8009-8031	194
1522	NMR Studies of Solvent-Free Ceramic Composite Polymer Electrolytes-A Brief Review. **2015**, 5, 915-23	9
1521	Redox Species of Redox Flow Batteries: A Review. **2015**, 20, 20499-517	114
1520	Synthesis of Metal Oxide Decorated Polycarboxyphenyl Polymer-Grafted Multiwalled Carbon Nanotube Composites by a Chemical Grafting Approach for Supercapacitor Application. **2015**, 2015, 1-11	3
1519	Applications of Mesoporous Ordered Semiconductor Materials □Case Study of TiO2. **2015**,	3

1518	Metal acetylacetonate complexes for high energy density non-aqueous redox flow batteries. **2015**, 3, 7929-7938	104
1517	A review of cathode materials and structures for rechargeable lithium–air batteries. **2015**, 8, 2144-2198	338
1516	High-performance nickel manganese ferrite/oxidized graphene composites as flexible and binder-free anodes for Li-ion batteries. **2015**, 5, 40018-40025	8
1515	Amorphous carbon framework stabilized SnO2 porous nanowires as high performance Li-ion battery anode materials. **2015**, 5, 49926-49932	31
1514	A general and simple method to synthesize well-crystallized nanostructured vanadium oxides for high performance Li-ion batteries. **2015**, 3, 9385-9389	39
1513	Hierarchical NiCo2O4@NiMoO4 core–shell hybrid nanowire/nanosheet arrays for high-performance pseudocapacitors. **2015**, 3, 14348-14357	184
1512	Ultra-small, size-controlled Ni(OH)2 nanoparticles: elucidating the relationship between particle size and electrochemical performance for advanced energy storage devices. **2015**, 7, e183-e183	90
1511	Screening of Novel Li-Air Battery Catalyst Materials by a Thin Film Combinatorial Materials Approach. **2015**, 17, 355-64	6
1510	Fast and Large Lithium Storage in 3D Porous VN Nanowires–Graphene Composite as a Superior Anode Toward High-Performance Hybrid Supercapacitors. **2015**, 25, 2270-2278	328
1509	Electrochemical Hierarchical Composites. **2015**, 239-286	
1508	Integration of network-like porous NiMoO4 nanoarchitectures assembled with ultrathin mesoporous nanosheets on three-dimensional graphene foam for highly reversible lithium storage. **2015**, 3, 13691-13698	67
1507	One-pot synthesis of FeF3/graphene composite for sodium secondary batteries. **2015**, 158, 21-24	13
1506	Design, preparation and performance of novel three-dimensional hierarchically porous carbon for supercapacitors. **2015**, 173, 566-574	41
1505	Complexes Containing Redox Noninnocent Ligands for Symmetric, Multielectron Transfer Nonaqueous Redox Flow Batteries. **2015**, 119, 15882-15889	59
1504	Sandwich nanoarchitecture of LiV3O8/graphene multilayer nanomembranes via layer-by-layer self-assembly for long-cycle-life lithium-ion battery cathodes. **2015**, 3, 13717-13723	12
1503	Polycrystalline zinc stannate as an anode material for sodium-ion batteries. **2015**, 3, 14033-14038	44
1502	Three-Dimensional Crumpled Reduced Graphene Oxide/MoS2 Nanoflowers: A Stable Anode for Lithium-Ion Batteries. **2015**, 7, 12625-30	165
1501	Freestanding one-dimensional manganese dioxide nanoflakes-titanium cabide/carbon core/double shell arrays as ultra-high performance supercapacitor electrode. **2015**, 293, 519-526	9

1500	Synthesis of nanostructured Ni3S2 with different morphologies as negative electrode materials for lithium ion batteries. **2015**, 293, 706-711	43
1499	High Lithium Storage Performance of FeS Nanodots in Porous Graphitic Carbon Nanowires. **2015**, 25, 2335-2342	130
1498	Hybrid and Hierarchical Composite Materials. **2015**,	14
1497	Layered ternary sulfide CuSbS2 nanoplates for flexible solid-state supercapacitors. **2015**, 3, 13263-13274	74
1496	Vinylene carbonate and tris(trimethylsilyl) phosphite hybrid additives to improve the electrochemical performance of spinel lithium manganese oxide/graphite cells at 60 °C. **2015**, 173, 750-756	15
1495	Na0.44MnO2 with very fast sodium diffusion and stable cycling synthesized via polyvinylpyrrolidone-combustion method. **2015**, 285, 161-168	61
1494	Lithium salts for advanced lithium batteries: Li metal, Li O2, and Li S. **2015**, 8, 1905-1922	353
1493	A Polyborate Coated Cellulose Composite Separator for High Performance Lithium Ion Batteries. **2015**, 162, A834-A838	29
1492	Morphological Influence in Lithium-Ion Battery 3D Electrode Architectures. **2015**, 162, A991-A1002	14
1491	Capacitive charging and desalination dynamics of a packed-bed reactor. **2015**, 17, 7181-95	7
1490	ZrO2-coated Li3V2(PO4)3/C nanocomposite: A high-voltage cathode for rechargeable lithium-ion batteries with remarkable cycling performance. **2015**, 41, 8779-8784	16
1489	Thermal behavior analyses of stacked prismatic LiCoO2 lithium-ion batteries during oven tests. **2015**, 88, 411-423	31
1488	The High Performance of Crystal Water Containing Manganese Birnessite Cathodes for Magnesium Batteries. **2015**, 15, 4071-9	339
1487	Renewables, nuclear, or fossil fuels? Scenarios for Great Britain power system considering costs, emissions and energy security. **2015**, 152, 83-93	141
1486	Microwave-assisted optimization of the manganese redox states for enhanced capacity and capacity retention of LiAlxMn2 O4 (x = 0 and 0.3) spinel materials. **2015**, 5, 32256-32262	24
1485	Pre-heat treatment of carbonate precursor firstly in nitrogen and then oxygen atmospheres: A new procedure to improve tap density of high-performance cathode material Li1.167(Ni0.139Co0.139Mn0.556)O2 for lithium ion batteries. **2015**, 292, 58-65	30
1484	Graphite Felt Coated with Dopamine-Derived Nitrogen-Doped Carbon as a Positive Electrode for a Vanadium Redox Flow Battery. **2015**, 162, A1675-A1681	34
1483	Chemical modification approaches for improved performance of Na-ion battery electrodes. **2015**,	

1482	A Highly Soluble Organic Catholyte for Non-Aqueous Redox Flow Batteries. **2015**, 3, 476-480	89
1481	Improvement of the Ar/N2 binary plasma-treated carbon passivation layer deposited on Li4Ti5O12 electrodes for stable high-rate lithium ion batteries. **2015**, 5, 92554-92563	4
1480	Round-the-clock power supply and a sustainable economy via synergistic integration of solar thermal power and hydrogen processes. **2015**, 112, 15821-6	12
1479	A highly reversible room-temperature lithium metal battery based on crosslinked hairy nanoparticles. **2015**, 6, 10101	333
1478	A separator modified by high efficiency oxygen plasma for lithium ion batteries with superior performance. **2015**, 5, 92995-93001	12
1477	An on-line spectroscopic monitoring system for the electrolytes in vanadium redox flow batteries. **2015**, 5, 100235-100243	27
1476	An energy storage assessment: Using optimal control strategies to capture multiple services. **2015**,	45
1475	Metal Oxide/Reduced Graphene Oxide Anodes for Lithium-Ion Batteries. **2015**, 66, 47-55	4
1474	A comprehensive review of Li 4 Ti 5 O 12 -based electrodes for lithium-ion batteries: The latest advancements and future perspectives. **2015**, 98, 1-71	389
1473	Flower-to-petal structural conversion and enhanced interfacial storage capability of hydrothermally crystallized MnCO3via the in situ mixing of graphene oxide. **2015**, 3, 24095-24102	40
1472	Rescaling and Reordering Nature□Society Relations: The Nam Theun 2 Hydropower Dam and Laos□Thailand Electricity Networks. **2015**, 105, 1221-1239	29
1471	Performance assessment of two adaptive Kalman filters for battery state-of-charge estimation. **2015**,	0
1470	Suggested operation of grid-connected lithium-ion battery energy storage system for primary frequency regulation: Lifetime perspective. **2015**,	4
1469	A self-assembled Si/SWNT 3D-composite-nanonetwork as a high-performance lithium ion battery anode. **2015**, 5, 97289-97294	4
1468	Facile synthesis of viologen and its reversible lithium storage property in organic lithium-ion batteries. **2015**, 5, 105632-105635	6
1467	Carbon-coated SnO2 thin films developed by magnetron sputtering as anode material for lithium-ion batteries. **2015**, 5, 106258-106264	12
1466	Degradation behaviour of Lithium-ion batteries based on field measured frequency regulation mission profile. **2015**,	14
1465	A High Performance Dual Electrolyte Aluminium-air Cell. **2015**, 75, 1983-1989	2

1464	. **2015**,	8
1463	Structure-property relationships in lithium superionic conductors having a Li10GeP2S12-type structure. **2015**, 71, 727-36	34
1462	Day-ahead primary power reserve planning and day-D primary frequency control of a Li-ion battery. **2015**,	8
1461	Bio-Inspired Electroactive Organic Molecules for Aqueous Redox Flow Batteries. 1. Thiophenoquinones. **2015**, 119, 21800-21809	37
1460	Control of electrochemical properties of nickel-rich layered cathode materials for lithium ion batteries by variation of the manganese to cobalt ratio. **2015**, 275, 877-883	85
1459	Decentralized control and fair load-shedding compensations to prevent cascading failures in a smart grid. **2015**, 67, 582-590	31
1458	Carbon-Coated Anatase TiO2Nanotubes for Li- and Na-Ion Anodes. **2015**, 162, A3013-A3020	71
1457	A Li-rich Layered@Spinel@Carbon heterostructured cathode material for high capacity and high rate lithium-ion batteries fabricated via an in situ synchronous carbonization-reduction method. **2015**, 3, 3995-4003	114
1456	High-Areal-Capacity Silicon Electrodes with Low-Cost Silicon Particles Based on Spatial Control of Self-Healing Binder. **2015**, 5, 1401826	166
1455	Sulphur-impregnated flow cathode to enable high-energy-density lithium flow batteries. **2015**, 6, 5877	115
1454	Ultrasmall Sn Nanoparticles Embedded in Carbon as High-Performance Anode for Sodium-Ion Batteries. **2015**, 25, 214-220	443
1453	A mesoporous catalytic membrane architecture for lithium-oxygen battery systems. **2015**, 15, 434-41	66
1452	A facile and novel organic coprecipitation strategy to prepare layered cathode material Li[Li0.2Mn0.54Ni0.13Co0.13]O2 with high capacity and excellent cycling stability. **2015**, 279, 157-164	50
1451	Cathode materials for magnesium and magnesium-ion based batteries. **2015**, 287, 15-27	266
1450	Going nano with protic ionic liquids: The synthesis of carbon coated Li3V2(PO4)3 nanoparticles encapsulated in a carbon matrix for high power lithium-ion batteries. **2015**, 12, 207-214	64
1449	Fabrication of hierarchical structured SiO 2 /polyetherimide-polyurethane nanofibrous separators with high performance for lithium ion batteries. **2015**, 154, 219-226	102
1448	Electrochemical performance and lithium-ion insertion/extraction mechanism studies of the novel Li2ZrO3 anode materials. **2015**, 161, 219-225	29
1447	In-situ synthesized mesoporous TiO2-B/anatase microparticles: Improved anodes for lithium ion batteries. **2015**, 23, 583-589	16

1446	Towards superior volumetric performance: design and preparation of novel carbon materials for energy storage. **2015**, 8, 1390-1403	304
1445	Rational design of metal oxide nanocomposite anodes for advanced lithium ion batteries. **2015**, 282, 1-8	35
1444	Graphene/acid assisted facile synthesis of structure-tuned Fe3O4 and graphene composites as anode materials for lithium ion batteries. **2015**, 86, 310-317	57
1443	Preparation of nanographite sheets supported Si nanoparticles by in situ reduction of fumed SiO2 with magnesium for lithium ion battery. **2015**, 281, 425-431	47
1442	Influence of polymorphism on the electrochemical behavior of M Sb negative electrodes in Li/Na batteries. **2015**, 280, 695-702	17
1441	N-substituted defective graphene sheets: promising electrode materials for Na-ion batteries. **2015**, 5, 17042-17048	24
1440	Exploring the possibilities of two-dimensional transition metal carbides as anode materials for sodium batteries. **2015**, 17, 5000-5	118
1439	Commercial and research battery technologies for electrical energy storage applications. **2015**, 48, 84-101	165
1438	Applications of batteries for grid-scale energy storage. **2015**, 587-607	5
1437	Energiespeicherung als Element einer sicheren Energieversorgung. **2015**, 87, 17-89	78
1436	Facile Fabrication of Bicomponent CoO/CoFe2O4-N-Doped Graphene Hybrids with Ultrahigh Lithium Storage Capacity. **2015**, 32, 91-97	24
1435	Synthesis of TiOx Nanotubular Arrays with Oxygen Defects as High-Performance Anodes for Lithium-Ion Batteries. **2015**, 2, 421-426	19
1434	Atomic-scale structure evolution in a quasi-equilibrated electrochemical process of electrode materials for rechargeable batteries. **2015**, 27, 2134-49	56
1433	A highly conductive, non-flammable polymer□anoparticle hybrid electrolyte. **2015**, 5, 20800-20809	56
1432	Battery-Based Energy Storage Transportation for Enhancing Power System Economics and Security. **2015**, 6, 2395-2402	63
1431	Overview of grid connected renewable energy based battery projects in USA. **2015**, 45, 219-234	49
1430	A Dendrite-Free Lithium Metal Battery Model Based on Nanoporous Polymer/Ceramic Composite Electrolytes and High-Energy Electrodes. **2015**, 11, 2631-5	41
1429	Adjusting electrode initial potential to obtain high-performance asymmetric supercapacitor based on porous vanadium pentoxide nanotubes and activated carbon nanorods. **2015**, 279, 358-364	57

1428	Stable alkali metal ion intercalation compounds as optimized metal oxide nanowire cathodes for lithium batteries. **2015**, 15, 2180-5	124
1427	Cobalt oxide-carbon nanosheet nanoarchitecture as an anode for high-performance lithium-ion battery. **2015**, 7, 2882-90	92
1426	Improved electrochemical and thermal properties of nickel rich LiNi0.6Co0.2Mn0.2O2 cathode materials by SiO2 coating. **2015**, 282, 45-50	216
1425	Improved electrochemical and thermal performances of layered Li[Li0.2Ni0.17Co0.07Mn0.56]O2 via Li2ZrO3 surface modification. **2015**, 282, 378-384	84
1424	CO2 assisted synthesis of highly dispersed Co3O4 nanoparticles on mesoporous carbon for lithium ion battery. **2015**, 633, 65-70	18
1423	Nanostructured Mo-based electrode materials for electrochemical energy storage. **2015**, 44, 2376-404	498
1422	Prospects and Limits of Energy Storage in Batteries. **2015**, 6, 830-44	197
1421	Accelerating Electrolyte Discovery for Energy Storage with High-Throughput Screening. **2015**, 6, 283-91	202
1420	Hard carbon originated from polyvinyl chloride nanofibers as high-performance anode material for Na-ion battery. **2015**, 7, 5598-604	183
1419	Impedance Spectroscopy Characterization of Porous Electrodes under Different Electrode Thickness Using a Symmetric Cell for High-Performance Lithium-Ion Batteries. **2015**, 119, 4612-4619	215
1418	Electrochemical Performance of Chemically and Solid State-Derived Chevrel Phase Mo6T8 (T = S, Se) Positive Electrodes for Sodium-Ion Batteries. **2015**, 119, 5771-5782	30
1417	Photovoltaic self-consumption in buildings: A review. **2015**, 142, 80-94	511
1416	Conjugated microporous polymers with excellent electrochemical performance for lithium and sodium storage. **2015**, 3, 1896-1901	102
1415	A new, cheap, and productive FeP anode material for sodium-ion batteries. **2015**, 51, 3682-5	139
1414	A silver-nanoparticle-catalyzed graphite composite for electrochemical energy storage. **2015**, 275, 688-693	13
1413	Growth of Ultrathin ZnCoO Nanosheets on Reduced Graphene Oxide with Enhanced Lithium Storage Properties. **2015**, 2, 1400014	138
1412	Ionic Liquid-Derived Nitrogen-Enriched Carbon/Sulfur Composite Cathodes with Hierarchical Microstructure: A Step Toward Durable High-Energy and High-Performance Lithium–Sulfur Batteries. **2015**, 27, 1674-1683	72
1411	Heat-resistant and rigid-flexible coupling glass-fiber nonwoven supported polymer electrolyte for high-performance lithium ion batteries. **2015**, 157, 191-198	26

1410	Probing the aging effects on nanomechanical properties of a LiFePO4 cathode in a large format prismatic cell. **2015**, 280, 256-262	18
1409	Pyrite FeS2 for high-rate and long-life rechargeable sodium batteries. **2015**, 8, 1309-1316	545
1408	Synthesis of Polymer Electrolytes Based on Poly(ethylene oxide) and an Anion-Stabilizing Hard Polymer for Enhancing Conductivity and Cation Transport. **2015**, 4, 225-230	51
1407	A Review of the Design Strategies for Tailored Cathode Catalyst Materials in Rechargeable Li-O2 Batteries. **2015**, 55, 458-471	19
1406	Preparation and electrochemical performance of Mo6V9O40 nanorods as cathode materials for Li batteries. **2015**, 5, 15395-15398	3
1405	Preparation of porous carbon microspheres anode materials from fine needle coke powders for lithium-ion batteries. **2015**, 5, 11115-11123	29
1404	Asymmetric supercapacitors based on carbon nanofibre and polypyrrole/nanocellulose composite electrodes. **2015**, 5, 16405-16413	45
1403	Improved electrochemical performance of the spherical LiNi0.5Mn1.5O4 particles modified by nano-Y2O3 coating. **2015**, 19, 1235-1246	20
1402	Electrochemical characteristics and transport properties of Fe(II)/Fe(III) redox couple in a non-aqueous reline deep eutectic solvent. **2015**, 154, 462-467	34
1401	Smart construction of three-dimensional hierarchical tubular transition metal oxide core/shell heterostructures with high-capacity and long-cycle-life lithium storage. **2015**, 12, 437-446	200
1400	Lithium-ion batteries (LIBs) for medium- and large-scale energy storage. **2015**, 213-289	4
1399	Honeycomb-like NiMoO4 ultrathin nanosheet arrays for high-performance electrochemical energy storage. **2015**, 3, 6128-6135	175
1398	High-performance symmetric sodium-ion batteries using a new, bipolar O3-type material, Na0.8Ni0.4Ti0.6O2. **2015**, 8, 1237-1244	193
1397	Graphene modified sodium vanadium fluorophosphate as a high voltage cathode material for sodium ion batteries. **2015**, 160, 330-336	62
1396	Multifunctional AlPO4 coating for improving electrochemical properties of low-cost Li[Li0.2Fe0.1Ni0.15Mn0.55]O2 cathode materials for lithium-ion batteries. **2015**, 7, 3773-81	160
1395	Fabrication of LiMnPO4-MWCNT cathode material via vapor phase hydrolysis and its electrochemical properties. **2015**, 21, 651-656	1
1394	High Performance 3D Si/Ge Nanorods Array Anode Buffered by TiN/Ti Interlayer for Sodium-Ion Batteries. **2015**, 25, 1386-1392	70
1393	Hierarchical carbon nanocages confining high-loading sulfur for high-rate lithium–sulfur batteries. **2015**, 12, 657-665	196

1392	3D MoS2□Graphene Microspheres Consisting of Multiple Nanospheres with Superior Sodium Ion Storage Properties. **2015**, 25, 1780-1788	436
1391	Flowable Conducting Particle Networks in Redox-Active Electrolytes for Grid Energy Storage. **2015**, 162, A5007-A5012	37
1390	Solvent responsive silica composite nanofiltration membrane with controlled pores and improved ion selectivity for vanadium flow battery application. **2015**, 274, 1126-1134	33
1389	A non-aqueous all-cobalt redox □ow battery using 1,10-phenanthrolinecobalt(II) hexafluorophosphate as active species. **2015**, 279, 205-209	47
1388	Sodium storage in Na-rich Na x FeFe(CN) 6 nanocubes. **2015**, 12, 386-393	183
1387	Effect of alumina on triethylene glycol diacetate-2-propenoic acid butyl ester composite polymer electrolytes for flexible lithium ion batteries. **2015**, 279, 405-412	39
1386	Ni-enhanced Co3O4 nanoarrays grown in situ on a Cu substrate as integrated anode materials for high-performance Li-ion batteries. **2015**, 5, 7388-7394	8
1385	Microstructure and Li-Ion Conductivity of Hot-Pressed Cubic Li7La3Zr2O12. **2015**, 98, 1209-1214	78
1384	Cylindrical nanostructured MoS2 directly grown on CNT composites for lithium-ion batteries. **2015**, 7, 3404-9	80
1383	Recent progress in theoretical and computational investigations of Li-ion battery materials and electrolytes. **2015**, 17, 4799-844	190
1382	Interfacial oxygen stabilizes composite silicon anodes. **2015**, 15, 703-8	45
1381	Electrochemical performance of rod-like Sb□ composite as anodes for Li-ion and Na-ion batteries. **2015**, 3, 3276-3280	82
1380	Lifetime and economic analyses of lithium-ion batteries for balancing wind power forecast error. **2015**, 39, 760-770	14
1379	Facile Synthesis of Mesoporous MoS2-TiO2 Nanofibers for Ultrastable Lithium Ion Battery Anodes. **2015**, 2, 374-381	45
1378	Recent approaches for the direct use of elemental sulfur in the synthesis and processing of advanced materials. **2015**, 54, 3249-58	173
1377	Lithium-ion batteries (LIBs) for medium- and large-scale energy storage:: current cell materials and components. **2015**, 125-211	7
1376	Hierarchical zigzag Na1.25V3O8 nanowires with topotactically encoded superior performance for sodium-ion battery cathodes. **2015**, 8, 1267-1275	141
1375	Low-defect Prussian blue nanocubes as high capacity and long life cathodes for aqueous Na-ion batteries. **2015**, 13, 117-123	196

1374	A facile strategy for fabricating hierarchically mesoporous Co3O4 urchins and bundles and their application in Li-ion batteries with high electrochemical performance. **2015**, 5, 24486-24493	14
1373	Thermal relaxation of lithium dendrites. **2015**, 17, 8000-5	51
1372	ZnFe2IF-derived porous ZnFe2O4/C@NCNT nanocomposites as anodes for lithium-ion batteries. **2015**, 3, 7793-7798	76
1371	Development of a three-phase battery energy storage scheduling and operation system for low voltage distribution networks. **2015**, 146, 122-134	43
1370	Surface-modified separators prepared with conductive polymer and aluminum fluoride for lithium-ion batteries. **2015**, 279, 737-744	30
1369	Recycling mobile phone batteries for lighting. **2015**, 78, 509-515	15
1368	Effects of phosphate additives on the stability of positive electrolytes for vanadium flow batteries. **2015**, 164, 307-314	35
1367	Li3Fe2(HPO3)3Cl: an electroactive iron phosphite as a new polyanionic cathode material for Li-ion battery. **2015**, 3, 7488-7497	19
1366	Ionic liquid electrodeposition of Ge nanostructures on freestanding Ni-nanocone arrays for Li-ion battery. **2015**, 5, 19596-19600	8
1365	LiFePO 4 particle conductive composite strategies for improving cathode rate capability. **2015**, 163, 323-329	51
1364	Modeling and experimental performance of an intermediate temperature reversible solid oxide cell for high-efficiency, distributed-scale electrical energy storage. **2015**, 283, 329-342	57
1363	Synthesis and Characterization of Poly-3,4-ethylenedioxythiophene/2,5-Dimercapto-1,3,4-thiadiazole (PEDOT-DMcT) Hybrids. **2015**, 167, 55-60	20
1362	Carbon cage encapsulating nano-cluster Li2S by ionic liquid polymerization and pyrolysis for high performance Li batteries. **2015**, 13, 467-473	67
1361	Silk-regulated hierarchical hollow magnetite/carbon nanocomposite spheroids for lithium-ion battery anodes. **2015**, 26, 115603	13
1360	Nanostructured alkali cation incorporated MnO2 cathode materials for aqueous sodium-ion batteries. **2015**, 3, 7780-7785	56
1359	Nanoplate-stacked baguette-like LiVO3 as a high performance cathode material for lithium-ion batteries. **2015**, 3, 8750-8755	18
1358	In Situ-Formed, Amorphous, Oxygen-Enabled Germanium Anode with Robust Cycle Life for Reversible Lithium Storage. **2015**, 2, 737-742	48
1357	Nanoconfined Carbon-Coated Na3V2(PO4)3 Particles in Mesoporous Carbon Enabling Ultralong Cycle Life for Sodium-Ion Batteries. **2015**, 5, 1402104	252

1356	Ti3+ self-doped Li4Ti5O12 nanosheets as anode materials for high performance lithium ion batteries. **2015**, 5, 23278-23282	31
1355	Nonfilling carbon coating of porous silicon micrometer-sized particles for high-performance lithium battery anodes. **2015**, 9, 2540-7	372
1354	Effects of Mg doping on the remarkably enhanced electrochemical performance of Na3V2(PO4)3 cathode materials for sodium ion batteries. **2015**, 3, 9578-9586	197
1353	Highly stable membranes based on sulfonated fluorinated poly(ether ether ketone)s with bifunctional groups for vanadium flow battery application. **2015**, 6, 5385-5392	21
1352	The design of a high-energy Li-ion battery using germanium-based anode and LiCoO2 cathode. **2015**, 293, 868-875	43
1351	Electrode potential and activation energy of sodium transition-metal oxides as cathode materials for sodium batteries: A first-principles investigation. **2015**, 106, 15-22	21
1350	Numerical investigation and thermodynamic analysis of the effect of electrolyte flow rate on performance of all vanadium redox flow batteries. **2015**, 293, 599-612	31
1349	[001] preferentially-oriented 2D tungsten disulfide nanosheets as anode materials for superior lithium storage. **2015**, 3, 17811-17819	50
1348	Engineering 2D multi-layer graphene-like Co3O4 thin sheets with vertically aligned nanosheets as basic building units for advanced pseudocapacitor materials. **2015**, 3, 17525-17533	77
1347	Growth of Ultrathin Mesoporous Ni-Mo Oxide Nanosheet Arrays on Ni Foam for High-performance Supercapacitor Electrodes. **2015**, 176, 1343-1351	35
1346	Multiscale anode materials in lithium ion batteries by combining micro- with nanoparticles: design of mesoporous TiO2 microfibers@nitrogen doped carbon composites. **2015**, 7, 13898-906	15
1345	Correlations between electrochemical Na+ storage properties and physiochemical characteristics of holey graphene nanosheets. **2015**, 3, 17282-17289	43
1344	Improved rate performance of amorphous carbon coated lithium zinc titanate anode material with alginic acid as carbon precursor and particle size controller. **2015**, 751, 57-64	38
1343	Growth of oxygen bubbles during recharge process in zinc-air battery. **2015**, 296, 40-45	33
1342	Role of Cobalt Content in Improving the Low-Temperature Performance of Layered Lithium-Rich Cathode Materials for Lithium-Ion Batteries. **2015**, 7, 17910-8	31
1341	Modeling the performance of hydrogen□oxygen unitized regenerative proton exchange membrane fuel cells for energy storage. **2015**, 297, 23-32	25
1340	Rechargeable Lithium-Iodine Batteries with Iodine/Nanoporous Carbon Cathode. **2015**, 15, 5982-7	133
1339	Best Practices for Reporting on Energy Storage. **2015**, 7, 16131-2	2

1338	A phosphorus/N-doped carbon nanofiber composite as an anode material for sodium-ion batteries. **2015**, 3, 19011-19017	99
1337	Cost-efficient demand-pull policies for multi-purpose technologies □The case of stationary electricity storage. **2015**, 155, 334-348	56
1336	An All-solid-state and All-organic Sodium-ion Battery based on Redox-active Polymers and Plastic Crystal Electrolyte. **2015**, 178, 55-59	37
1335	Sn-stabilized Li-rich layered Li(Li0.17Ni0.25Mn0.58)O2 oxide as a cathode for advanced lithium-ion batteries. **2015**, 3, 17627-17634	87
1334	Enhanced corrosion resistance of hypo-eutectic Al□Mg□x Si alloys against molten sodium attack in high temperature sodium sulfur batteries. **2015**, 98, 748-757	19
1333	Cobalt phosphide as a new anode material for sodium storage. **2015**, 294, 627-632	137
1332	Hybrid system for rechargeable magnesium battery with high energy density. **2015**, 5, 11931	42
1331	Crumpled graphene: preparation and applications. **2015**, 5, 66767-66796	52
1330	Na2NixCo1 □xFe(CN)6: A class of Prussian blue analogs with transition metal elements as cathode materials for sodium ion batteries. **2015**, 59, 91-94	74
1329	Structure Tracking Aided Design and Synthesis of Li3V2(PO4)3 Nanocrystals as High-Power Cathodes for Lithium Ion Batteries. **2015**, 27, 5712-5718	48
1328	Polysulfide-Blocking Microporous Polymer Membrane Tailored for Hybrid Li-Sulfur Flow Batteries. **2015**, 15, 5724-9	126
1327	Click-In Ferroelectric Nanoparticles for Dielectric Energy Storage. **2015**, 7, 17819-25	14
1326	Scalable fabrication of micro-sized bulk porous Si from Fe□Si alloy as a high performance anode for lithium-ion batteries. **2015**, 3, 17956-17962	60
1325	Synthesis of BCN Nanoparticles Sandwiched between Carbon Nanosheets and Performance in Electrochemical Capacitors. **2015**, 719-720, 137-140	
1324	Mesoporous NiCo2O4 nanoneedles grown on three dimensional graphene networks as binder-free electrode for high-performance lithium-ion batteries and supercapacitors. **2015**, 176, 1-9	100
1323	Long-Life, High-Efficiency Lithium□Sulfur Battery from a Nanoassembled Cathode. **2015**, 27, 5080-5087	54
1322	Fluorine Chemistry for Negative Electrode in Sodium and Lithium Ion Batteries. **2015**, 387-414	10
1321	Large-scale electricity storage utilizing reversible solid oxide cells combined with underground storage of CO2 and CH4. **2015**, 8, 2471-2479	179

1320	Anion-conducting sulfaminated aromatic polymers by acid functionalization. **2015**, 5, 56636-56644	8
1319	Silicon-based nanosheets synthesized by a topochemical reaction for use as anodes for lithium ion batteries. **2015**, 8, 2654-2662	78
1318	Preliminary study of high energy density Zn/Ni flow batteries. **2015**, 294, 574-579	20
1317	Investigations on the self-discharge process in vanadium flow battery. **2015**, 294, 562-568	34
1316	Anatase TiO2 ultrathin nanobelts derived from room-temperature-synthesized titanates for fast and safe lithium storage. **2015**, 5, 11804	70
1315	Electrochemical performance of 0.5Li2MnO3□0.5Li(Mn0.375Ni0.375Co0.25)O2 composite cathode in pyrrolidinium-based ionic liquid electrolytes. **2015**, 294, 22-30	16
1314	Fast ultrasound-assisted synthesis of Li2MnSiO4 nanoparticles for a lithium-ion battery. **2015**, 294, 522-529	12
1313	Improved electrochemical performance of spinel LiMn(1.5)Ni(0.5)O4 through MgF2 nano-coating. **2015**, 7, 15609-17	52
1312	Update on anode materials for Na-ion batteries. **2015**, 3, 17899-17913	341
1311	Flexible metal□organic frameworks as superior cathodes for rechargeable sodium-ion batteries. **2015**, 3, 16590-16597	79
1310	Promotional recyclable Li-ion batteries by a magnetic binder with anti-vibration and non-fatigue performance. **2015**, 3, 15403-15407	10
1309	Simulation of disaggregated load profiles and development of a proxy microgrid for modelling purposes. **2015**, 39, 244-255	3
1308	Improved high voltage electrochemical performance of Li2ZrO3-coated LiNi0.5Co0.2Mn0.3O2 cathode material. **2015**, 647, 612-619	101
1307	Component-cost and performance based comparison of flow and static batteries. **2015**, 293, 1032-1038	9
1306	Chemical doping enhances electronic transport in networks of hexabenzocoronenes assembled in non-aqueous electrolyte. **2015**, 6, 5560-5564	2
1305	Formation of a stable carbon framework in a MnO yolk□shell sphere to achieve exceptional performance for a Li-ion battery anode. **2015**, 3, 15591-15597	42
1304	Solid-state synthesis and electrochemical performance of Ce-doped Li4Ti5O12 anode materials for lithium-ion batteries. **2015**, 174, 369-375	50
1303	Hybrid Lithium-Sulfur Batteries with a Solid Electrolyte Membrane and Lithium Polysulfide Catholyte. **2015**, 7, 16625-31	95

1302	Retracted Article: Mesoporous amorphous FeOF nanococoons for high-rate and long-life rechargeable sodium-ion batteries. **2015**, 3, 16716-16727	22
1301	Electrode thickness control: Precondition for quite different functions of graphene conductive additives in LiFePO4 electrode. **2015**, 92, 311-317	34
1300	Long-life Li/polysulphide batteries with high sulphur loading enabled by lightweight three-dimensional nitrogen/sulphur-codoped graphene sponge. **2015**, 6, 7760	802
1299	Lithium-ion polymer cells assembled with a reactive composite separator containing vinyl-functionalized SiO2 particles. **2015**, 295, 149-155	22
1298	Multiphase and Double-Layer NiFe2O4@NiO-Hollow-Nanosphere-Decorated Reduced Graphene Oxide Composite Powders Prepared by Spray Pyrolysis Applying Nanoscale Kirkendall Diffusion. **2015**, 7, 16842-9	50
1297	Carbon-coated Zn2GeO4 on Ni foam as lithium ion battery anodes with exceptional long cycling stability. **2015**, 176, 96-102	12
1296	Identification of electrochemical reaction products in lithium–oxygen cells with 7Li nutation spectroscopy. **2015**, 93, 976-982	3
1295	Important Role of Functional Groups for Sodium Ion Intercalation in Expanded Graphite. **2015**, 27, 5402-5406	62
1294	Combining Fast Li-Ion Battery Cycling with Large Volumetric Energy Density: Grain Boundary Induced High Electronic and Ionic Conductivity in Li4Ti5O12 Spheres of Densely Packed Nanocrystallites. **2015**, 27, 5647-5656	111
1293	Constructing the optimal conductive network in MnO-based nanohybrids as high-rate and long-life anode materials for lithium-ion batteries. **2015**, 3, 19738-19746	121
1292	Green and facile synthesis of Fe3O4 and graphene nanocomposites with enhanced rate capability and cycling stability for lithium ion batteries. **2015**, 3, 16206-16212	47
1291	A general spatio-temporal model of energy systems with a detailed account of transport and storage. **2015**, 80, 155-176	64
1290	ZnSb/C composite anode in additive free electrolyte for sodium ion batteries. **2015**, 159, 349-352	17
1289	Energy storage by reversible electrodialysis: The concentration battery. **2015**, 495, 502-516	63
1288	Microscale characterization of coupled degradation mechanism of graded materials in lithium batteries of electric vehicles. **2015**, 50, 1445-1461	16
1287	Preparation of highly expanded graphene with large surface area and its additional conductive effect for EDLC performance. **2015**, 26, 6945-6953	4
1286	Phosphite as Polyanion-Based Cathode for Li-Ion Battery: Synthesis, Structure, and Electrochemistry of LiFe(HPO3)2. **2015**, 54, 6566-72	13
1285	Room Temperature, Hybrid Sodium-Based Flow Batteries with Multi-Electron Transfer Redox Reactions. **2015**, 5, 11215	13

1284	Effects of morphology on the electrochemical performances of Li3V2(PO4)3 cathode material for lithium ion batteries. **2015**, 5, 54225-54245	20
1283	Carbon-coated Na3V2(PO4)3 nanocomposite as a novel high rate cathode material for aqueous sodium ion batteries. **2015**, 646, 522-527	61
1282	A multi-agent decentralized energy management system based on distributed intelligence for the design and control of autonomous polygeneration microgrids. **2015**, 103, 166-179	184
1281	Nanomaterials: Science and applications in the lithium–sulfur battery. **2015**, 10, 315-338	282
1280	Organic Cathode Materials for Rechargeable Batteries. **2015**, 637-671	7
1279	Electrochemical Studies of Microwave Synthesised Bimetallic Sulfides Nanostructures As Faradaic Electrodes.. **2015**, 174, 778-786	11
1278	Polyanthraquinone-based nanostructured electrode material capable of high-performance pseudocapacitive energy storage in aprotic electrolyte. **2015**, 15, 654-661	54
1277	Facile synthesis of 3D few-layered MoS□ coated TiO□ nanosheet core-shell nanostructures for stable and high-performance lithium-ion batteries. **2015**, 7, 12895-905	75
1276	Effective enhancement of the electrochemical performance of layered cathode Li1.5Mn0.75Ni0.25O2.5 via a novel facile molten salt method. **2015**, 5, 58528-58535	2
1275	A spray drying approach for the synthesis of a Na2C6H2O4/CNT nanocomposite anode for sodium-ion batteries. **2015**, 3, 13193-13197	56
1274	Comparative life cycle assessment of battery storage systems for stationary applications. **2015**, 49, 4825-33	116
1273	Effect of Ni(2+) content on lithium/nickel disorder for Ni-rich cathode materials. **2015**, 7, 7702-8	223
1272	Re-building Daniell cell with a Li-ion exchange film. **2014**, 4, 6916	18
1271	High-Density Lithium-Ion Energy Storage Utilizing the Surface Redox Reactions in Folded Graphene Films. **2015**, 27, 3291-3298	64
1270	Radical Compatibility with Nonaqueous Electrolytes and Its Impact on an All-Organic Redox Flow Battery. **2015**, 127, 8808-8811	34
1269	On the Way Toward Understanding Solution Chemistry of Lithium Polysulfides for High Energy Li–S Redox Flow Batteries. **2015**, 5, 1500113	103
1268	Ultrafine SnO 2 nanocrystals anchored graphene composites as anode material for lithium-ion batteries. **2015**, 68, 120-125	32
1267	A further electrochemical investigation on solutions to high energetical power sources: isomerous compound 0.75Li1.2Ni0.2Mn0.6O2□0.25LiNi0.5Mn1.5O4. **2015**, 5, 37330-37339	16

1266	Natural macromolecule based carboxymethyl cellulose as a gel polymer electrolyte with adjustable porosity for lithium ion batteries. **2015**, 288, 368-375	128
1265	Synthesis of Sodium Poly[4-styrenesulfonyl(trifluoromethylsulfonyl)imide]-co-ethylacrylate] Solid Polymer Electrolytes. **2015**, 175, 232-239	22
1264	Na(+) intercalation pseudocapacitance in graphene-coupled titanium oxide enabling ultra-fast sodium storage and long-term cycling. **2015**, 6, 6929	834
1263	Nanosheets of earth-abundant jarosite as novel anodes for high-rate and long-life lithium-ion batteries. **2015**, 7, 10518-24	14
1262	Inhibiting effect of Na+ pre-intercalation in MoO3 nanobelts with enhanced electrochemical performance. **2015**, 15, 145-152	53
1261	Experimental validation of a 0-D numerical model for phase change thermal management systems in lithium-ion batteries. **2015**, 287, 211-219	35
1260	Synthesis of Carbon coated Nano-Na4Ni3(PO4)2P2O7 as a Novel Cathode Material for Hybrid Supercapacitors. **2015**, 169, 447-455	29
1259	Simulation of solid oxide iron-air battery: Effects of heat and mass transfer on charge/discharge characteristics. **2015**, 286, 264-275	10
1258	Energy and climate effects of second-life use of electric vehicle batteries in California through 2050. **2015**, 288, 82-91	63
1257	Nano-assembled Na2FePO4F/carbon nanotube multi-layered cathodes for Na-ion batteries. **2015**, 56, 46-50	40
1256	Computational comparison of oxidation stability: Solvent/salt monomers vs solvent□olvent/salt pairs. **2015**, 288, 393-400	17
1255	Carbon□ulfur Composites from Cylindrical and Gyroidal Mesoporous Carbons with Tunable Properties in Lithium□ulfur Batteries. **2015**, 27, 3349-3357	57
1254	An Advanced Na□eCl2 ZEBRA Battery for Stationary Energy Storage Application. **2015**, 5, 1500357	43
1253	Facile fabrication of polyacrylonitrile/alumina composite membranes based on triethylene glycol diacetate-2-propenoic acid butyl ester gel polymer electrolytes for high-voltage lithium-ion batteries. **2015**, 486, 21-28	60
1252	Semiconductor nanowire battery electrodes. **2015**, 441-469	1
1251	Graphene based integrated tandem supercapacitors fabricated directly on separators. **2015**, 15, 1-8	26
1250	Graphene nanosheets, carbon nanotubes, graphite, and activated carbon as anode materials for sodium-ion batteries. **2015**, 3, 10320-10326	180
1249	Scalable synthesis of Na3V2(PO4)3/C porous hollow spheres as a cathode for Na-ion batteries. **2015**, 3, 10378-10385	93

1248	Preparation of carbon-coated MnFe2O4 nanospheres as high-performance anode materials for lithium-ion batteries. **2015**, 17, 1	17
1247	Soft template PEG-assisted synthesis of Fe 3 O 4 @C nanocomposite as superior anode materials for lithium-ion batteries. **2015**, 60, 884-891	14
1246	Water Impacts of a Low-Carbon Electric Power Future: Assessment Methodology and Status. **2015**, 2, 1-9	8
1245	A Porous TiO2Electrode Prepared by an Energy Efficient Pyro-Synthesis for Advanced Lithium-Ion Batteries. **2015**, 162, A1220-A1226	14
1244	Highly crystalline Prussian blue/graphene composites for high-rate performance cathodes in Na-ion batteries. **2015**, 5, 37545-37552	55
1243	Bifunctional metal-free catalysis of mesoporous noble carbons for oxygen reduction and evolution reactions. **2015**, 8, 1156-60	81
1242	Metal□rganic frameworks and their derived nanostructures for electrochemical energy storage and conversion. **2015**, 8, 1837-1866	1246
1241	Direct Observation of Reversible Magnesium Ion Intercalation into a Spinel Oxide Host. **2015**, 27, 3377-84	145
1240	Using Li(+) as the electrochemical messenger to fabricate an aqueous rechargeable Zn-Cu battery. **2015**, 51, 7294-7	13
1239	Molybdenum oxide-iron oxide/graphene composite as anode materials for lithium ion batteries. **2015**, 19, 1867-1874	2
1238	Mesoporous silicon/carbon hybrids with ordered pore channel retention and tunable carbon incorporated content as high performance anode materials for lithium-ion batteries. **2015**, 85, 159-166	31
1237	Electrochemical properties of all-solid-state lithium batteries with amorphous MoS3 electrodes prepared by mechanical milling. **2015**, 3, 14142-14147	50
1236	A lithiation/delithiation mechanism of monodispersed MSn5 (M = Fe, Co and FeCo) nanospheres. **2015**, 3, 7170-7178	44
1235	Graphene-based nano-materials for lithium□ulfur battery and sodium-ion battery. **2015**, 15, 379-405	190
1234	Graphitized porous carbon prepared from pyrolysis of Sterculia scaphigera and its application in lithium ion batteries. **2015**, 5, 46558-46563	7
1233	Progress of electrode/electrolyte interfacial investigation of Li-ion batteries via in situ scanning probe microscopy. **2015**, 60, 839-849	41
1232	On the importance of weather and climate change for our present and future energy needs, edited by Troccoli, Dubus and Ellen Haupt. **2015**, 56, 206-208	4
1231	Hybrid of porous cobalt oxide nanospheres and nitrogen-doped graphene for applications in lithium-ion batteries and oxygen reduction reaction. **2015**, 290, 25-34	67

1230	Chemical vapor deposition and atomic layer deposition for advanced lithium ion batteries and supercapacitors. **2015**, 8, 1889-1904	185
1229	The structure control of ZnS/graphene composites and their excellent properties for lithium-ion batteries. **2015**, 3, 13384-13389	128
1228	Facile synthesis of reduced graphene oxide/CeO2 nanocomposites and their application in supercapacitors. **2015**, 41, 8710-8716	49
1227	An organophosphine oxide redox shuttle additive that delivers long-term overcharge protection for 4 V lithium-ion batteries. **2015**, 3, 10710-10714	22
1226	Electrochemical investigation of thermically treated graphene oxides as electrode materials for vanadium redox flow battery. **2015**, 147, 74-81	64
1225	Ti-substituted tunnel-type Na□MnO□ oxide as a negative electrode for aqueous sodium-ion batteries. **2015**, 6, 6401	265
1224	Cobalt carbonate dumbbells for high-capacity lithium storage: A slight doping of ascorbic acid and an enhancement in electrochemical performances. **2015**, 284, 154-161	55
1223	Fundamental models for flow batteries. **2015**, 49, 40-58	96
1222	Nickel-rich layered lithium transition-metal oxide for high-energy lithium-ion batteries. **2015**, 54, 4440-57	1095
1221	Sandwich-like porous TiO2/reduced graphene oxide (rGO) for high-performance lithium-ion batteries. **2015**, 3, 8701-8705	36
1220	High mass loading, binder-free MXene anodes for high areal capacity Li-ion batteries. **2015**, 163, 246-251	169
1219	Ambipolar zinc-polyiodide electrolyte for a high-energy density aqueous redox flow battery. **2015**, 6, 6303	288
1218	Ternary metal fluorides as high-energy cathodes with low cycling hysteresis. **2015**, 6, 6668	104
1217	Interlayer-expanded molybdenum disulfide nanocomposites for electrochemical magnesium storage. **2015**, 15, 2194-202	289
1216	Bowl-like sulfur particles wrapped by graphene oxide as cathode material of lithium–sulfur batteries. **2015**, 5, 28832-28835	12
1215	A phase-transfer assisted solvo-thermal strategy for low-temperature synthesis of Na3(VO1-xPO4)2F1+2x cathodes for sodium-ion batteries. **2015**, 51, 7160-3	51
1214	Flexible supercapacitors based on paper substrates: a new paradigm for low-cost energy storage. **2015**, 44, 5181-99	455
1213	An Amorphous Carbon Nitride Composite Derived from ZIF-8 as Anode Material for Sodium-Ion Batteries. **2015**, 8, 1856-61	76

1212	Coaxial Zn2GeO4@carbon nanowires directly grown on Cu foils as high-performance anodes for lithium ion batteries. **2015**, 17, 5109-14	35
1211	Porous Polymeric Composite Separators for Redox Flow Batteries. **2015**, 55, 247-272	40
1210	1,4-Bis(trimethylsilyl)-2,5-dimethoxybenzene: a novel redox shuttle additive for overcharge protection in lithium-ion batteries that doubles as a mechanistic chemical probe. **2015**, 3, 7332-7337	26
1209	Critical Descriptor for the Rational Design of Oxide-Based Catalysts in Rechargeable Li□O2Batteries: Surface Oxygen Density. **2015**, 27, 3243-3249	47
1208	A new carbon additive compounded Li3V1.97Zn0.05(PO4)3/C cathode for plug-in hybrid electric vehicles. **2015**, 170, 269-275	13
1207	Impact of large-scale meso- and macropore structures in adenosine-derived affordable noble carbon on efficient reversible oxygen electrocatalytic redox reactions. **2015**, 3, 11720-11724	25
1206	Sn-Based Nanoparticles Encapsulated in a Porous 3D Graphene Network: Advanced Anodes for High-Rate and Long Life Li-Ion Batteries. **2015**, 25, 3488-3496	142
1205	Electrochemical polymerization of pyrene derivatives on functionalized carbon nanotubes for pseudocapacitive electrodes. **2015**, 6, 7040	132
1204	An Electrochemical Cell for Selective Lithium Capture from Seawater. **2015**, 49, 9415-22	47
1203	Aqueous Rechargeable Batteries for Large-scale Energy Storage. **2015**, 55, 521-536	35
1202	All silicon electrode photocapacitor for integrated energy storage and conversion. **2015**, 15, 2727-31	109
1201	Direct Observation of the Redistribution of Sulfur and Polysufides in Li□ Batteries During the First Cycle by In Situ X-Ray Fluorescence Microscopy. **2015**, 5, 1500072	74
1200	Core□hell structured SnO2 hollow spheres□olyaniline composite as an anode for sodium-ion batteries. **2015**, 5, 31465-31471	45
1199	Discrete Li-occupation versus pseudo-continuous Na-occupation and their relationship with structural change behaviors in Fe2(MoO4)3. **2015**, 5, 8810	34
1198	High areal capacity hybrid magnesium-lithium-ion battery with 99.9% Coulombic efficiency for large-scale energy storage. **2015**, 7, 7001-7	103
1197	Prussian blue without coordinated water as a superior cathode for sodium-ion batteries. **2015**, 51, 8181-4	122
1196	p-Dopable poly(4-cyano)triphenylamine: A high voltage organic cathode for lithium ion batteries. **2015**, 150, 16-19	16
1195	Effect of degree of sulfonation and casting solvent on sulfonated poly(ether ether ketone) membrane for vanadium redox flow battery. **2015**, 285, 195-204	130

1194	Multifunctional conducing polymer coated Na1+MnFe(CN)6 cathode for sodium-ion batteries with superior performance via a facile and one-step chemistry approach. **2015**, 13, 200-207	118
1193	Improving the capacity of sodium ion battery using a virus-templated nanostructured composite cathode. **2015**, 15, 2917-21	63
1192	Hexamethylene diisocyanate as an electrolyte additive for high-energy density lithium ion batteries. **2015**, 3, 8246-8249	17
1191	Conducting polymers and their inorganic composites for advanced Li-ion batteries: a review. **2015**, 5, 42109-42130	121
1190	Reduced Graphene Oxide/Boron Nitride Composite Film as a Novel Binder-Free Anode for Lithium Ion Batteries with Enhanced Performances. **2015**, 166, 197-205	53
1189	Smart households: Dispatch strategies and economic analysis of distributed energy storage for residential peak shaving. **2015**, 147, 246-257	113
1188	Colloidal silicalite-nafion composite ion exchange membrane for vanadium redox-flow battery. **2015**, 484, 1-9	43
1187	Enhanced Electrochemical Performance of Fe0.74Sn5@Reduced Graphene Oxide Nanocomposite Anodes for Both Li-Ion and Na-Ion Batteries. **2015**, 7, 7912-9	49
1186	Investigation on the effect of catalyst on the electrochemical performance of carbon felt and graphite felt for vanadium flow batteries. **2015**, 286, 73-81	65
1185	Polydopamine coated SPEEK membrane for a vanadium redox flow battery. **2015**, 5, 33400-33406	34
1184	Anodes for Rechargeable Lithium-Sulfur Batteries. **2015**, 5, 1402273	362
1183	A metal-free bifunctional electrocatalyst for oxygen reduction and oxygen evolution reactions. **2015**, 10, 444-52	2290
1182	Nanocarbon/Metal Oxide Hybrids for Lithium Ion Batteries. **2015**, 87-118	
1181	A QuaternaryPoly(ethylene carbonate)-Lithium Bis(trifluoromethanesulfonyl)imide-Ionic Liquid-Silica Fiber Composite Polymer Electrolyte for Lithium Batteries. **2015**, 175, 134-140	64
1180	Fabrication and functionalization of carbon nanotube films for high-performance flexible supercapacitors. **2015**, 92, 271-296	76
1179	Magnetic Field-Controlled Lithium Polysulfide Semiliquid Battery with Ferrofluidic Properties. **2015**, 15, 7394-9	48
1178	. **2015**, 3, 1392-1407	7
1177	Lithium-substituted sodium layered transition metal oxide fibers as cathodes for sodium-ion batteries. **2015**, 1, 74-81	24

1176	Estimating the value of electricity storage in an energy-only wholesale market. **2015**, 159, 422-432		62
1175	ZnO/CoO and ZnCo2O4 Hierarchical Bipyramid Nanoframes: Morphology Control, Formation Mechanism, and Their Lithium Storage Properties. **2015**, 7, 22848-57		49
1174	Niobium doped anatase TiO2 as an effective anode material for sodium-ion batteries. **2015**, 3, 22969-22974		65
1173	Hierarchical Graphene-Encapsulated Hollow SnO2@SnS2 Nanostructures with Enhanced Lithium Storage Capability. **2015**, 7, 22533-41		68
1172	Multifunctional high strength and high energy epoxy composite structural supercapacitors with wet-dry operational stability. **2015**, 3, 20097-20102		31
1171	Alkaline quinone flow battery. *Science*, **2015**, 349, 1529-32	33.3	622
1170	Synthesis of curved Si flakes using Mg powder as both the template and reductant and their derivatives for lithium-ion batteries. **2015**, 5, 67315-67322		5
1169	Architectural design and phase engineering of N/B-codoped TiO2(B)/anatase nanotube assemblies for high-rate and long-life lithium storage. **2015**, 3, 22591-22598		46
1168	Scaling up Nano Li4Ti5O12for High-Power Lithium-Ion Anodes Using Large Scale Flame Spray Pyrolysis. **2015**, 162, A2331-A2338		28
1167	Materials for suspension (semi-solid) electrodes for energy and water technologies. **2015**, 44, 8664-87		106
1166	A three layer design with mesoporous silica encapsulated by a carbon core and shell for high energy lithium ion battery anodes. **2015**, 3, 22739-22749		64
1165	Saving electric energy by integrating a photoelectrode into a Li-ion battery. **2015**, 3, 20903-20907		39
1164	High damage tolerance of electrochemically lithiated silicon. **2015**, 6, 8417		81
1163	Unique mesoporous spinel Li4Ti5O12 nanosheets as anode materials for lithium-ion batteries. **2015**, 297, 436-441		59
1162	Evaluation of mechanical properties of Na2S P2S5 sulfide glass electrolytes. **2015**, 3, 22061-22065		45
1161	Three-dimensionally scaffolded Co3O4 nanosheet anodes with high rate performance. **2015**, 299, 40-48		19
1160	Structural and Electrochemical Study of Hierarchical LiNi(1/3)Co(1/3)Mn(1/3)O2 Cathode Material for Lithium-Ion Batteries. **2015**, 7, 21939-47		81
1159	Atomic-Scale Probing of the Dynamics of Sodium Transport and Intercalation-Induced Phase Transformations in MoS **2015**, 9, 11296-301		136

1158	Scalable synthesis of Li1.2Mn0.54Ni0.13Co0.13O2/LiNi0.5Mn1.5O4 sphere composites as stable and high capacity cathodes for Li-ion batteries. **2015**, 5, 84673-84679	16
1157	Architecture-controlled synthesis of MxOy (M = Ni, Fe, Cu) microfibres from seaweed biomass for high-performance lithium ion battery anodes. **2015**, 3, 22708-22715	62
1156	Sulfonated Reduced Graphene Oxide: A High Performance Anode Material for Lithium Ion Battery. **2015**, 10, 1550054	
1155	Nitrogen-doped porous carbon obtained via one-step carbonizing biowaste soybean curd residue for supercapacitor applications. **2015**, 5, 83129-83138	47
1154	Model Parametrization and Adaptation Based on the Invariance of Support Vectors With Applications to Battery State-of-Health Monitoring. **2015**, 64, 3908-3917	33
1153	Unraveling the storage mechanism in organic carbonyl electrodes for sodium-ion batteries. **2015**, 1, e1500330	138
1152	Exploration and progress of high-energy supercapacitors and related electrode materials. **2015**, 58, 1851-1863	13
1151	Synthesis of Ni(OH)2 Nanoflakes Through a Novel Ion Diffusion Method Controlled by Ion Exchange Membrane and Electrochemical Supercapacitive Properties. **2015**, 184, 47-57	18
1150	Cell Chemistry of Sodium□Oxygen Batteries with Various Nonaqueous Electrolytes. **2015**, 119, 25319-25326	52
1149	Electrochemistry: Liquid assets. **2015**, 526, S98-9	4
1148	Degradation of (La(0.8)Sr(0.2))(0.98)MnO(3-□)+Zr(0.84)Y(0.16)O(2-□) composite electrodes during reversing current operation. **2015**, 182, 365-77	14
1147	Suppression of Self-Discharge by a LiPF6/Methyl Difluoroacetate Electrolyte in Li/CuCl2Batteries. **2015**, 162, A2747-A2752	5
1146	Nickel Hexacyanoferrate Nanoparticles as a Low Cost Cathode Material for Lithium-Ion Batteries. **2015**, 184, 58-63	46
1145	Hollow Nitrogen-doped Fe3O4/Carbon Nanocages with Hierarchical Porosities as Anode Materials for Lithium-ion Batteries. **2015**, 186, 50-57	43
1144	Anion exchange membranes based on chloromethylation of fluorinated poly(arylene ether)s. **2015**, 31, 1056-1061	2
1143	Evaluation of Tris-Bipyridine Chromium Complexes for Flow Battery Applications: Impact of Bipyridine Ligand Structure on Solubility and Electrochemistry. **2015**, 54, 10214-23	47
1142	Diffusion-induced stress and strain energy affected by dislocation mechanisms in a cylindrical nanoanode. **2015**, 281, 21-28	6
1141	Synthesis and characterization of TEMPO- and viologen-polymers for water-based redox-flow batteries. **2015**, 6, 7801-7811	90

1140	Advanced Sodium Ion Battery Anode Constructed via Chemical Bonding between Phosphorus, Carbon Nanotube, and Cross-Linked Polymer Binder. **2015**, 9, 11933-41	220
1139	An aqueous, polymer-based redox-flow battery using non-corrosive, safe, and low-cost materials. **2015**, 527, 78-81	568
1138	Candidate structures for inorganic lithium solid-state electrolytes identified by high-throughput bond-valence calculations. **2015**, 1, 325-332	42
1137	Flow simulation and analysis of high-power flow batteries. **2015**, 299, 617-628	49
1136	Hybrid functional study of the NASICON-type Na3V2(PO4)3: crystal and electronic structures, and polaron-Na vacancy complex diffusion. **2015**, 17, 30433-9	61
1135	Evolutionary Design of Low Molecular Weight Organic Anolyte Materials for Applications in Nonaqueous Redox Flow Batteries. **2015**, 137, 14465-72	154
1134	3D hierarchically porous zinc–nickel–cobalt oxide nanosheets grown on Ni foam as binder-free electrodes for electrochemical energy storage. **2015**, 3, 24022-24032	53
1133	Multidimensional Polycation–Cyclodextrin Polymer as an Effective Aqueous Binder for High Sulfur Loading Cathode in Lithium-Sulfur Batteries. **2015**, 7, 26257-65	90
1132	Analytical, Numerical and Experimental Determination of Thermophysical Properties of Commercial 18650 LiCoO2Lithium-Ion Battery. **2015**, 162, A2789-A2795	27
1131	A facile reflux procedure to increase active surface sites form highly active and durable supported palladium@platinum bimetallic nanodendrites. **2015**, 297, 59-67	20
1130	First-Principles Analysis of Defect Thermodynamics and Ion Transport in Inorganic SEI Compounds: LiF and NaF. **2015**, 7, 18985-96	123
1129	Enabling Green Fabrication of Li-Ion Battery Electrodes by Electrophoretic Deposition: Growth of Thick Binder-Free Mesoporous TiO2-Carbon Anode Films. **2015**, 162, D3013-D3018	15
1128	A high performance sulfur-doped disordered carbon anode for sodium ion batteries. **2015**, 8, 2916-2921	429
1127	Polymer Electrolyte Membranes Based on Multiblock Poly(phenylene ether ketone)s with Pendant Alkylsulfonic Acids: Effects on the Isomeric Configuration and Ion Transport Mechanism. **2015**, 119, 19596-19606	8
1126	A chemistry and material perspective on lithium redox flow batteries towards high-density electrical energy storage. **2015**, 44, 7968-96	322
1125	Three-dimensional interconnected network GeOx/multi-walled CNT composite spheres as high-performance anodes for lithium ion batteries. **2015**, 3, 19393-19401	22
1124	Dendrite growth in the recharging process of zinc–air batteries. **2015**, 3, 22648-22655	111
1123	Review—Electromobility: Batteries or Fuel Cells?. **2015**, 162, A2605-A2622	347

1122	Aligned carbon nanostructures based 3D electrodes for energy storage. **2015**, 24, 559-586	16
1121	Validation of green composite containing nanocrystalline Mn2O3 and biocarbon derived from human hair as a potential anode for lithium-ion batteries. **2015**, 3, 23981-23989	26
1120	Preparation of a Fe2 O3 /Ag nanowire coaxial nanocable for high-performance lithium-ion batteries. **2015**, 21, 11129-33	23
1119	Fluorinated Reduced Graphene Oxide as an Interlayer in Li Batteries. **2015**, 27, 7070-7081	109
1118	Cubic and octahedral Cu2O nanostructures as anodes for lithium-ion batteries. **2015**, 3, 23003-23010	50
1117	Distributed cooperative control of battery energy storage system in AC microgrid applications. **2015**, 3, 43-51	22
1116	Mass production of LiFePO4/C energy materials using Fe waste slag. **2015**, 24, 375-380	7
1115	(Sub)surface-Promoted Disproportionation and Absolute Band Alignment in High-Power LiMn2O4 Cathodes. **2015**, 119, 21358-21368	23
1114	Synthesis and Electrochemistry Study of P2- and O3-phase Na2/3Fe1/2Mn1/2O2. **2015**, 182, 1029-1036	47
1113	Cyanoethylated Carboxymethyl Chitosan as Water Soluble Binder with Enhanced Adhesion Capability and electrochemical performances for LiFePO4 Cathode. **2015**, 182, 900-907	45
1112	A new layered sodium molybdenum oxide anode for full intercalation-type sodium-ion batteries. **2015**, 3, 22012-22016	41
1111	Carbon-based electrocatalysts for advanced energy conversion and storage. **2015**, 1, e1500564	434
1110	An asymmetric supercapacitor with good electrochemical performances based on Ni(OH)2/AC/CNT and AC. **2015**, 182, 1159-1165	59
1109	Nonaqueous redox-flow batteries: organic solvents, supporting electrolytes, and redox pairs. **2015**, 8, 3515-3530	272
1108	Co3O4/C/graphene nanocomposites as novel anode materials for high capacity lithium ion batteries. **2015**, 5, 73677-73683	11
1107	Electromagnetic effects model and design of energy systems for lithium batteries with gradient structure in sustainable energy electric vehicles. **2015**, 52, 842-851	12
1106	Investigating the Reversibility of Structural Modifications of LixNiyMnzCo1 O2 Cathode Materials during Initial Charge/Discharge, at Multiple Length Scales. **2015**, 27, 6044-6052	64
1105	Three-Dimensional Nanoarchitecture of BiFeO3 Anchored TiO2 Nanotube Arrays for Electrochemical Energy Storage and Solar Energy Conversion. **2015**, 3, 2254-2263	101

1104	Thermally-responsive, nonflammable phosphonium ionic liquid electrolytes for lithium metal batteries: operating at 100 degrees celsius. **2015**, 6, 6601-6606	28
1103	Mechanism of Polysulfone-Based Anion Exchange Membranes Degradation in Vanadium Flow Battery. **2015**, 7, 19446-54	99
1102	A subtractive approach to molecular engineering of dimethoxybenzene-based redox materials for non-aqueous flow batteries. **2015**, 3, 14971-14976	72
1101	High-Performance Lithium□Sulfur Batteries with a Cost-Effective Carbon Paper Electrode and High Sulfur-Loading. **2015**, 27, 6394-6401	69
1100	Using Polypyrrole Coating to Improve Cycling Stability of NaTi2(PO4)3as an Aqueous Na-Ion Anode. **2015**, 162, A2201-A2207	31
1099	Synthesis of CNT@Fe3O4-C hybrid nanocables as anode materials with enhanced electrochemical performance for lithium ion batteries. **2015**, 176, 1332-1337	52
1098	Electrode Side Reactions, Capacity Loss and Mechanical Degradation in Lithium-Ion Batteries. **2015**, 162, A2026-A2035	126
1097	Sodiation Kinetics of Metal Oxide Conversion Electrodes: A Comparative Study with Lithiation. **2015**, 15, 5755-63	100
1096	Janus Solid-Liquid Interface Enabling Ultrahigh Charging and Discharging Rate for Advanced Lithium-Ion Batteries. **2015**, 15, 6102-9	69
1095	High capacity and rate capability of a layered Li2RuO3 cathode utilized in hybrid Na+/Li+ batteries. **2015**, 3, 18273-18278	9
1094	How much bulk energy storage is needed to decarbonize electricity?. **2015**, 8, 3409-3417	48
1093	A zinc□iron redox-flow battery under $100 per kW h of system capital cost. **2015**, 8, 2941-2945	130
1092	Anatase/TiO2-B hybrid microspheres constructed from ultrathin nanosheets: facile synthesis and application for fast lithium ion storage. **2015**, 17, 7930-7937	17
1091	Photonic crystals for sensitized solar cells: fabrication, properties, and applications. **2015**, 3, 10665-10686	36
1090	Low temperature operation of a solid-oxide Fe□air rechargeable battery using a La0.9Sr0.1Ga0.8Mg0.2O3 oxide ion conductor. **2015**, 3, 8260-8264	10
1089	BF3-promoted electrochemical properties of quinoxaline in propylene carbonate. **2015**, 5, 18822-18831	25
1088	Trends in Na-Ion Solvation with Alkyl-Carbonate Electrolytes for Sodium-Ion Batteries: Insights from First-Principles Calculations. **2015**, 119, 22747-22759	63
1087	Nanostructured CuP2/C composites as high-performance anode materials for sodium ion batteries. **2015**, 3, 21754-21759	97

1086	Hollow Core-Shell SnO2/C Fibers as Highly Stable Anodes for Lithium-Ion Batteries. **2015**, 7, 21472-8	116
1085	MnO2-based nanostructures for high-performance supercapacitors. **2015**, 3, 21380-21423	655
1084	A non-aqueous redox flow battery based on tris(1,10-phenanthroline) complexes of iron(II) and cobalt(II). **2015**, 293, 778-783	35
1083	Fluorinated Carbamates as Suitable Solvents for LiTFSI-Based Lithium-Ion Electrolytes: Physicochemical Properties and Electrochemical Characterization. **2015**, 119, 22404-22414	19
1082	Improved electrochemical performance of boron-doped SiO negative electrode materials in lithium-ion batteries. **2015**, 299, 25-31	44
1081	Carbon Electrodes for K-Ion Batteries. **2015**, 137, 11566-9	1190
1080	Soil as an inexhaustible and high-performance anode material for Li-ion batteries. **2015**, 51, 15827-30	6
1079	Amorphous cobalt silicate nanobelts@carbon composites as a stable anode material for lithium ion batteries. **2015**, 6, 6908-6915	52
1078	Three-dimensional Mn-doped Zn2GeO4 nanosheet array hierarchical nanostructures anchored on porous Ni foam as binder-free and carbon-free lithium-ion battery anodes with enhanced electrochemical performance. **2015**, 3, 21328-21336	53
1077	Understanding the combined effects of microcrystal growth and band gap reduction for Fe(1)Ti F3 nanocomposites as cathode materials for lithium-ion batteries. **2015**, 17, 140-151	45
1076	Hierarchical carbon nanocages as high-rate anodes for Li- and Na-ion batteries. **2015**, 8, 3535-3543	64
1075	Design of Nickel-rich Layered Oxides Using d Electronic Donor for Redox Reactions. **2015**, 27, 6450-6456	41
1074	Hydrophilic poly(vinylidene fluoride) porous membrane with well connected ion transport networks for vanadium flow battery. **2015**, 298, 228-235	24
1073	Mesoporous LiFeBO3/C hollow spheres for improved stability lithium-ion battery cathodes. **2015**, 298, 355-362	17
1072	Metal-Sulfur Battery Cathodes Based on PAN-Sulfur Composites. **2015**, 137, 12143-52	376
1071	Molybdenum dioxide hollow microspheres for cathode material in rechargeable hybrid battery using magnesium anode. **2015**, 19, 3347-3353	29
1070	Sodium-ion storage properties of nickel sulfide hollow nanospheres/reduced graphene oxide composite powders prepared by a spray drying process and the nanoscale Kirkendall effect. **2015**, 7, 16781-8	135
1069	Metal-organic framework derived porous CuO/Cu2O composite hollow octahedrons as high performance anode materials for sodium ion batteries. **2015**, 51, 16413-6	98

1068	Retracted Article: In situ nano-coating on Li1.2Mn0.52Ni0.13Co0.13O2 with a layered@spinel@coating layer heterostructure for lithium-ion batteries. **2015**, 3, 21290-21297		22
1067	Porous carbon derived from disposable shaddock peel as an excellent catalyst toward VO2+/VO2+ couple for vanadium redox battery. **2015**, 299, 301-308		39
1066	One-step synthesis of the nickel foam supported network-like ZnO nanoarchitectures assembled with ultrathin mesoporous nanosheets with improved lithium storage performance. **2015**, 5, 81341-81347		17
1065	Low temperature performance of sodium□nickel chloride batteries with NaSICON solid electrolyte. **2015**, 759, 201-206		27
1064	A Chemically Coupled Antimony/Multilayer Graphene Hybrid as a High-Performance Anode for Sodium-Ion Batteries. **2015**, 27, 8138-8145		121
1063	Potassium-Ion Oxygen Battery Based on a High Capacity Antimony Anode. **2015**, 7, 26158-66		197
1062	Sn(II,IV) steric and electronic structure effects enable self-selective doping on Fe/Si-sites of Li2FeSiO4 nanocrystals for high performance lithium ion batteries. **2015**, 3, 24437-24445		12
1061	"Water-in-salt" electrolyte enables high-voltage aqueous lithium-ion chemistries. *Science*, **2015**, 350, 938-43	33.3	1717
1060	Nanostructured Electrocatalysts for PEM Fuel Cells and Redox Flow Batteries: A Selected Review. **2015**, 5, 7288-7298		68
1059	Synthesis of lithium iron phosphate/carbon microspheres by using polyacrylic acid coated iron phosphate nanoparticles derived from iron(III) acrylate. **2015**, 8, 1009-16		25
1058	Electrospun SnSb Crystalline Nanoparticles inside Porous Carbon Fibers as a High Stability and Rate Capability Anode for Rechargeable Batteries. **2015**, 80, 516-521		25
1057	Eliminating degradation in solid oxide electrochemical cells by reversible operation. **2015**, 14, 239-44		296
1056	Graphene-based materials for flexible electrochemical energy storage. **2015**, 39, 727-740		56
1055	Novel peapod-like Ni□P nanoparticles with improved electrochemical properties for hydrogen evolution and lithium storage. **2015**, 7, 1446-53		117
1054	Hydrogen-Enriched Reduced Graphene Oxide with Enhanced Electrochemical Performance in Lithium Ion Batteries. **2015**, 27, 266-275		47
1053	The effect of graphene on the performance of an electrochemical flow capacitor. **2015**, 3, 2717-2725		23
1052	Pure inorganic separator for lithium ion batteries. **2015**, 7, 738-42		76
1051	Enhanced performance of interconnected LiFePO4/C microspheres with excellent multiple conductive network and subtle mesoporous structure. **2015**, 152, 398-407		63

1050	Two-dimensional SnS2@PANI nanoplates with high capacity and excellent stability for lithium-ion batteries. **2015**, 3, 3659-3666	110
1049	Mechanical Surface Modification of Lithium Metal: Towards Improved Li Metal Anode Performance by Directed Li Plating. **2015**, 25, 834-841	294
1048	. **2015**, 6, 70-78	91
1047	Ni(OH) 2 /NiO/Ni composite nanotube arrays for high-performance supercapacitors. **2015**, 154, 128-135	82
1046	The disodium salt of 2,5-dihydroxy-1,4-benzoquinone as anode material for rechargeable sodium ion batteries. **2015**, 51, 1446-8	69
1045	Recent advances in the electrolytes for interfacial stability of high-voltage cathodes in lithium-ion batteries. **2015**, 5, 2732-2748	209
1044	An aqueous rechargeable sodium ion battery based on a NaMnO2NaTi2(PO4)3 hybrid system for stationary energy storage. **2015**, 3, 1400-1404	150
1043	Glucose-assisted synthesis of the hierarchical TiO2 nanowire@MoS2 nanosheet nanocomposite and its synergistic lithium storage performance. **2015**, 3, 2762-2769	128
1042	The effect of samaria doped ceria coating on the performance of Li1.2Ni0.13Co0.13Mn0.54O2 cathode material for lithium-ion battery. **2015**, 153, 484-491	28
1041	Potential of lithium-ion batteries in renewable energy. **2015**, 76, 375-380	414
1040	Manganese oxide/carbon yolk-shell nanorod anodes for high capacity lithium batteries. **2015**, 15, 738-44	318
1039	Ultrafine tin oxide on reduced graphene oxide as high-performance anode for sodium-ion batteries. **2015**, 151, 8-15	85
1038	Novel electrical energy storage system based on reversible solid oxide cells: System design and operating conditions. **2015**, 276, 133-144	69
1037	In situ preparation of 3D graphene aerogels@hierarchical Fe3O4 nanoclusters as high rate and long cycle anode materials for lithium ion batteries. **2015**, 51, 1597-600	73
1036	Pyrolytic carbon-coated Si nanoparticles on elastic graphene framework as anode materials for high-performance lithium-ion batteries. **2015**, 82, 161-167	96
1035	Lithium-rich Li1.2Ni0.13Co0.13Mn0.54O2 oxide coated by Li3PO4 and carbon nanocomposite layers as high performance cathode materials for lithium ion batteries. **2015**, 3, 2634-2641	92
1034	Nanostructured anode materials for lithium ion batteries. **2015**, 3, 2454-2484	574
1033	Amorphous 3D nanoflake array-assembled porous 2D cobalt oxalate coordination polymer thin sheets with excellent pseudocapacitive performance. **2015**, 3, 1847-1852	63

1032	One-step argon/nitrogen binary plasma jet irradiation of Li4Ti5O12 for stable high-rate lithium ion battery anodes. **2015**, 275, 660-667	38
1031	Understanding Aqueous Electrolyte Stability through Combined Computational and Magnetic Resonance Spectroscopy: A Case Study on Vanadium Redox Flow Battery Electrolytes. **2015**, 80, 428-437	22
1030	Impact of Proton Concentration on Equilibrium Potential and Polarization of Vanadium Flow Batteries. **2015**, 80, 382-389	18
1029	Reversible Aluminum-Ion Intercalation in Prussian Blue Analogs and Demonstration of a High-Power Aluminum-Ion Asymmetric Capacitor. **2015**, 5, 1401410	115
1028	Influence of antimony ions in negative electrolyte on the electrochemical performance of vanadium redox flow batteries. **2015**, 151, 297-305	65
1027	Combustion calorimetry of carbonate electrolytes used in lithium ion batteries. **2015**, 33, 22-36	21
1026	From a historic review to horizons beyond: lithium-sulphur batteries run on the wheels. **2015**, 51, 18-33	147
1025	Reversibility of Lithium-Ion–Air Batteries Using Lithium Intercalation Compounds as Anodes. **2015**, 80, 349-353	5
1024	Superior asymmetric supercapacitor based on Ni-Co oxide nanosheets and carbon nanorods. **2014**, 4, 3712	142
1023	Combining a dynamic battery model with high-resolution smart grid data to assess microgrid islanding lifetime. **2015**, 137, 482-489	23
1022	Encapsulation of MnO nanocrystals in electrospun carbon nanofibers as high-performance anode materials for lithium-ion batteries. **2014**, 4, 4229	121
1021	Mean-Conditional Value-at-Risk Optimal Energy Storage Operation in the Presence of Transaction Costs. **2015**, 30, 1222-1232	50
1020	Lithium–sulfur batteries: from liquid to solid cells. **2015**, 3, 936-958	300
1019	Bio-mass derived mesoporous carbon as superior electrode in all vanadium redox flow battery with multicouple reactions. **2015**, 274, 846-850	78
1018	On-chip high power porous silicon lithium ion batteries with stable capacity over 10,000 cycles. **2015**, 7, 98-103	34
1017	Electrical energy storage systems: A comparative life cycle cost analysis. **2015**, 42, 569-596	927
1016	Exploration of the Effective Location of Surface Oxygen Defects in Graphene-Based Electrocatalysts for All-Vanadium Redox-Flow Batteries. **2015**, 5, 1401550	90
1015	Self-assembled three-dimensional mesoporous ZnFe2O4-graphene composites for lithium ion batteries with significantly enhanced rate capability and cycling stability. **2015**, 275, 769-776	77

1014	A Polyionic, Large-Format Energy Storage Device Using an Aqueous Electrolyte and Thick-Format Composite NaTi2(PO4)3/Activated Carbon Negative Electrodes. **2015**, 3, 20-31	45
1013	Metal-free aqueous redox capacitor via proton rocking-chair system in an organic-based couple. **2014**, 4, 3591	66
1012	Ni-induced stepwise capacity increase in Ni-poor Li-rich cathode materials for high performance lithium ion batteries. **2015**, 8, 808-820	16
1011	Facile synthesis of spherical xLi2MnO3·(1−x)Li(Mn0.33Co0.33Ni0.33)O2 as cathode materials for lithium-ion batteries with improved electrochemical performance. **2015**, 275, 64-72	29
1010	Self-healing Li–Bi liquid metal battery for grid-scale energy storage. **2015**, 275, 370-376	98
1009	Effect of a surface active agent on performance of zinc/bromine redox flow batteries: Improvement in current efficiency and system stability. **2015**, 275, 294-297	51
1008	Facile synthesis of MoS2/MWNT anode material for high-performance lithium-ion batteries. **2015**, 41, 1921-1925	10
1007	Graphene-wrapped sulfur nanospheres with ultra-high sulfur loading for high energy density lithium–sulfur batteries. **2015**, 324, 399-404	49
1006	Chitosan oligosaccharides: A novel and efficient water soluble binder for lithium zinc titanate anode in lithium-ion batteries. **2015**, 151, 27-34	34
1005	One-dimensional nanostructured design of Li1+x(Mn1/3Ni1/3Fe1/3)O2 as a dual cathode for lithium-ion and sodium-ion batteries. **2015**, 3, 250-257	30
1004	Morphology engineering of high performance binary oxide electrodes. **2015**, 17, 732-50	84
1003	Towards greener and more sustainable batteries for electrical energy storage. **2015**, 7, 19-29	4222
1002	In situ fabrication of three-dimensional, ultrathin graphite/carbon nanotube/NiO composite as binder-free electrode for high-performance energy storage. **2015**, 3, 624-633	147
1001	A core–shell structure spinel cathode material with a concentration-gradient shell for high performance lithium-ion batteries. **2015**, 274, 219-228	28
1000	Li2S nanocomposites underlying high-capacity and cycling stability in all-solid-state lithium–sulfur batteries. **2015**, 274, 471-476	69
999	Graphene models and nano-scale characterization technologies for fuel cell vehicle electrodes. **2015**, 42, 66-77	19
998	Monitoring innovation in electrochemical energy storage technologies: A patent-based approach. **2015**, 137, 537-544	53
997	An Aqueous Lithium–Iodine Battery with Solid Polymer Electrolyte-Coated Metallic Lithium Anode. **2015**, 80, 344-348	29

996	Nanostructured Mn-based oxides for electrochemical energy storage and conversion. **2015**, 44, 699-728	609
995	Influence of Oxides on the Stress Evolution and Reversibility during SnOx Conversion and Li-Sn Alloying Reactions. **2015**, 5, 1400317	21
994	Towards High-Performance Nonaqueous Redox Flow Electrolyte Via Ionic Modification of Active Species. **2015**, 5, 1400678	151
993	Lithium–Air Oxygen Shuttle Battery with a ZrO2-Based Ion-Conducting Oxide Electrolyte. **2015**, 80, 359-362	4
992	Mesoporous Co3O4 sheets/3D graphene networks nanohybrids for high-performance sodium-ion battery anode. **2015**, 273, 878-884	151
991	Overview of current development in electrical energy storage technologies and the application potential in power system operation. **2015**, 137, 511-536	1921
990	Exfoliated-SnS2 restacked on graphene as a high-capacity, high-rate, and long-cycle life anode for sodium ion batteries. **2015**, 7, 1325-32	229
989	Hybrid supercapacitor-battery materials for fast electrochemical charge storage. **2014**, 4, 4315	192
988	Membranes with well-defined ions transport channels fabricated via solvent-responsive layer-by-layer assembly method for vanadium flow battery. **2014**, 4, 4016	32
987	A general framework for the assessment of solar fuel technologies. **2015**, 8, 126-157	242
986	The Evolution of Lithium-Ion Cell Thermal Safety with Aging Examined in a Battery Testing Calorimeter. **2016**, 2, 12	22
985	High Reversibility of "Soft" Electrode Materials in All-Solid-State Batteries. **2016**, 4,	15
984	Lithium Superionic Conductor Li9.42Si1.02P2.1S9.96O2.04 with Li10GeP2S12-Type Structure in the Li2S–P2S5–SiO2 Pseudoternary System: Synthesis, Electrochemical Properties, and Structure–Composition Relationships. **2016**, 4,	34
983	Thermal Analysis of a Fast Charging Technique for a High Power Lithium-Ion Cell. **2016**, 2, 32	9
982	Scheduling of Electricity Storage for Peak Shaving with Minimal Device Wear. **2016**, 9, 465	5
981	Techno-Economic Modeling and Analysis of Redox Flow Battery Systems. **2016**, 9, 627	63
980	Potential of Reversible Solid Oxide Cells as Electricity Storage System. **2016**, 9, 662	29
979	High performance lithium–sulfur batteries with a permselective sulfonated acetylene black modified separator. **2016**, 4, 12319-12327	72

978	One-Step Catalytic Synthesis of CuO/Cu2O in a Graphitized Porous C Matrix Derived from the Cu-Based Metal-Organic Framework for Li- and Na-Ion Batteries. **2016**, 8, 19514-23	76
977	Association and Diffusion of Li(+) in Carboxymethylcellulose Solutions for Environmentally Friendly Li-ion Batteries. **2016**, 9, 1804-13	4
976	Mechanical properties of anion exchange membranes by combination of tensile stress□train tests and dynamic mechanical analysis. **2016**, 54, 1180-1187	37
975	Constructing Hierarchically Hollow Core-Shell MnO2 /C Hybrid Spheres for High-Performance Lithium Storage. **2016**, 12, 3914-9	46
974	Construction of Complex CoS Hollow Structures with Enhanced Electrochemical Properties for Hybrid Supercapacitors. **2016**, 1, 102-113	406
973	Formation of Sn□M (M=Fe, Al, Ni) alloy nanoparticles by DC arc-discharge and their electrochemical properties as anodes for Li-ion batteries. **2016**, 242, 127-135	9
972	CuSe1□Sx nanosheets with an ordered superstructure as anode materials for lithium-ion batteries. **2016**, 40, 6588-6592	9
971	Mesoporous Titanium Nitride-Enabled Highly Stable Lithium-Sulfur Batteries. **2016**, 28, 6926-31	459
970	Graphene-Based Nanocomposites for Energy Storage. **2016**, 6, 1502159	233
969	Ultra-High Proton/Vanadium Selectivity for Hydrophobic Polymer Membranes with Intrinsic Nanopores for Redox Flow Battery. **2016**, 6, 1600517	101
968	Hard Carbon Microtubes Made from Renewable Cotton as High-Performance Anode Material for Sodium-Ion Batteries. **2016**, 6, 1600659	488
967	Germaniumbasierte Nanomaterialien f□wiederaufladbare Batterien. **2016**, 128, 8028-8054	5
966	Germanium-Based Nanomaterials for Rechargeable Batteries. **2016**, 55, 7898-922	122
965	Restraining Capacity Increase To Achieve Ultrastable Lithium Storage: Case Study of a Manganese(II) Oxide/Graphene-Based Nanohybrid and Its Full-Cell Performance. **2016**, 3, 1354-1359	20
964	Core□hell Ge@Graphene@TiO2 Nanofibers as a High-Capacity and Cycle-Stable Anode for Lithium and Sodium Ion Battery. **2016**, 26, 1104-1111	235
963	Self-Supported Nanotube Arrays of Sulfur-Doped TiO2 Enabling Ultrastable and Robust Sodium Storage. **2016**, 28, 2259-65	385
962	High-Rate, Durable Sodium-Ion Battery Cathode Enabled by Carbon-Coated Micro-Sized Na3V2(PO4)3 Particles with Interconnected Vertical Nanowalls. **2016**, 3, 1500740	39
961	1D Building Blocks-Intermingled Heteronanomats as a Platform Architecture For High-Performance Ultrahigh-Capacity Lithium-Ion Battery Cathodes. **2016**, 6, 1501594	29

960	Layer-by-Layer Na3V2(PO4)3 Embedded in Reduced Graphene Oxide as Superior Rate and Ultralong-Life Sodium-Ion Battery Cathode. **2016**, 6, 1600389	225
959	Mechano-Electrochemical Stochastics in High-Capacity Electrodes for Energy Storage. **2016**, 163, A1120-A1137	27
958	Unique Cobalt Sulfide/Reduced Graphene Oxide Composite as an Anode for Sodium-Ion Batteries with Superior Rate Capability and Long Cycling Stability. **2016**, 12, 1359-68	347
957	Synthesis and properties of branched sulfonated polyimides for membranes in vanadium redox flow battery application. **2016**, 210, 308-320	41
956	Electroactive biopolymer/graphene hydrogels prepared for high-performance supercapacitor electrodes. **2016**, 211, 941-949	31
955	Ionic liquid incorporated nanocomposite polymer electrolytes for rechargeable lithium ion battery: A way to achieve improved electrochemical and interfacial properties. **2016**, 40, 168-176	24
954	Hierarchical Mesoporous Lithium-Rich Li[Li0.2Ni0.2Mn0.6]O2 Cathode Material Synthesized via Ice Templating for Lithium-Ion Battery. **2016**, 8, 18832-40	74
953	Additive effect of fluoroethylene and difluoroethylene carbonates for the solid electrolyte interphase film formation in sodium-ion batteries: a quantum chemical study. **2016**, 6, 65232-65242	37
952	Green and Facile Fabrication of MWNTs@Sb2S3@PPy Coaxial Nanocables for High-Performance Na-Ion Batteries. **2016**, 33, 493-499	62
951	Robust, Ultra-Tough Flexible Cathodes for High-Energy Li-S Batteries. **2016**, 12, 939-50	52
950	Three-Dimensional Coral-Like Structure Constructed of Carbon-Coated Interconnected Monocrystalline SnO2 Nanoparticles with Improved Lithium-Storage Properties. **2016**, 3, 1098-1106	8
949	A techno-economic analysis on NaS battery energy storage system supporting peak shaving. **2016**, 40, 241-247	21
948	Advanced Charged Sponge-Like Membrane with Ultrahigh Stability and Selectivity for Vanadium Flow Batteries. **2016**, 26, 210-218	115
947	Metal Based Nonvolatile Field-Effect Transistors. **2016**, 26, 3490-3495	9
946	Metal Sulfide Hollow Nanostructures for Electrochemical Energy Storage. **2016**, 6, 1501333	563
945	Ultra-Thick, Low-Tortuosity, and Mesoporous Wood Carbon Anode for High-Performance Sodium-Ion Batteries. **2016**, 6, 1600377	205
944	The Electrochemistry with Lithium versus Sodium of Selenium Confined To Slit Micropores in Carbon. **2016**, 16, 4560-8	117
943	A New Design Strategy for Observing Lithium Oxide Growth-Evolution Interactions Using Geometric Catalyst Positioning. **2016**, 16, 4799-806	20

942	Functionalized Nanocellulose-Integrated Heterolayered Nanomats toward Smart Battery Separators. **2016**, 16, 5533-41	81
941	A Hierarchical N/S-Codoped Carbon Anode Fabricated Facilely from Cellulose/Polyaniline Microspheres for High-Performance Sodium-Ion Batteries. **2016**, 6, 1501929	378
940	Vanadium-Ion Redox Reactions in a Three-Dimensional Network of Reduced Graphite Oxide. **2016**, 3, 650-657	16
939	Revealing the Electrochemical Lithiation Routes of CuO Nanowires by in Situ TEM. **2016**, 3, 1296-1300	10
938	Assessment of Solar-to-Fuels Strategies: Photocatalysis and Electrocatalytic Reduction. **2016**, 4, 1369-1391	19
937	Hard Carbon Microspheres: Potassium-Ion Anode Versus Sodium-Ion Anode. **2016**, 6, 1501874	612
936	Liquid Metal Electrodes for Energy Storage Batteries. **2016**, 6, 1600483	83
935	Li 4 Ti 5 O 12 /reduced graphene oxide composite as a high-rate anode material for lithium ion batteries. **2016**, 209, 235-243	27
934	Controllable synthesis of high-rate and long cycle-life Na3V2(PO4)3 for sodium-ion batteries. **2016**, 326, 14-22	65
933	Effect of lithium content on spinel phase evolution in the composite material LixNi0.25Co0.10Mn0.65O(3.4 + x) / 2 (0.8 □x □1.6) for Li-ion batteries. **2016**, 293, 77-84	5
932	Synthesis of mesoporous TiO2@C@MnO2 multi-shelled hollow nanospheres with high rate capability and stability for lithium-ion batteries. **2016**, 6, 65243-65251	12
931	Graphite-Nanoplate-Coated Bi2 S3 Composite with High-Volume Energy Density and Excellent Cycle Life for Room-Temperature Sodium-Sulfide Batteries. **2016**, 22, 590-7	42
930	Nanostructured TiO2-Based Anode Materials for High-Performance Rechargeable Lithium-Ion Batteries. **2016**, 2, 764-775	90
929	Lithium Fluoride Additives for Stable Cycling of Lithium Batteries at High Current Densities. **2016**, 2, 1500246	241
928	All-Component Transient Lithium-Ion Batteries. **2016**, 6, 1502496	37
927	Carbon Nanomaterials in Different Dimensions for Electrochemical Energy Storage. **2016**, 6, 1600278	174
926	High-Performance Aqueous Organic Flow Battery with Quinone-Based Redox Couples at Both Electrodes. **2016**, 163, A1442-A1449	133
925	Swiss pumped hydro storage potential for Germany□ electricity system under high penetration of intermittent renewable energy. **2016**, 4, 542-553	15

924	The binder-free Ca2Ge7O16 nanosheet/carbon nanotube composite as a high-capacity anode for Li-ion batteries with long cycling life. **2016**, 6, 107040-107048	2
923	Fe-carbon nitride □core-shell□electrocatalysts for the oxygen reduction reaction. **2016**, 222, 1778-1791	54
922	Magnetic field induced motion behavior of gas bubbles in liquid. **2016**, 6, 21068	11
921	Si doped T6 carbon structure as an anode material for Li-ion batteries: An ab initio study. **2016**, 6, 37822	5
920	Electroactive graphene nanofluids for fast energy storage. **2016**, 3, 031004	19
919	Systematic Studies on “Abundant” Battery Materials: Identification and Reaction Mechanisms. **2016**, 84, 654-661	4
918	NaTi2(PO4)3/Carbon and NaTi2(PO4)3/Graphite Composites as Anode Materials for Aqueous Rechargeable Na-ion Batteries. **2016**, 84, 705-708	4
917	A comprehensive study on the degradation of lithium-ion batteries during calendar ageing: The internal resistance increase. **2016**,	5
916	Effect of manganese oxide crystal tunnel size on Li-ion and Na-ion battery performance. **2016**,	2
915	Determination of the mechanism and extent of surface degradation in Ni-based cathode materials after repeated electrochemical cycling. **2016**, 4, 096105	16
914	. **2016**,	3
913	The role of electronic and ionic conductivities in the rate performance of tunnel structured manganese oxides in Li-ion batteries. **2016**, 4, 046108	38
912	Optimization of energy storage system capacity for wind farms based on cost-benefit analysis. **2016**,	0
911	Study of the influencing factors on the discharging performance of lithium-ion batteries and its index of state-of-energy. **2016**,	7
910	Battery Energy Storage System in smoothing control application of photovoltaic power fluctuations caused by clouds passing. **2016**,	0
909	Multi-objective dynamic programming for constrained optimization of non-separable objective functions with application in energy storage. **2016**,	4
908	Full-soft-switching high step-up bidirectional isolated current-fed push-pull DC-DC converter for battery energy storage applications. **2016**,	7
907	Battery energy storage systems for the electricity grid: UK research facilities. **2016**,	25

906	Solvent Effects on Polysulfide Redox Kinetics and Ionic Conductivity in Lithium-Sulfur Batteries. **2016**, 163, A3111-A3116	57
905	Full soft-switching bidirectional isolated current-fed dual inductor push-pull DC-DC converter for battery energy storage applications. **2016**,	5
904	Physical integration of PV-battery system: Advantages, challenges, and thermal model. **2016**,	8
903	Electrospun one-dimensional BaLi2Ti6O14 nanofibers for high rate performing lithium-ion battery. **2016**, 1-2, 17-23	15
902	Direct Superassemblies of Freestanding Metal-Carbon Frameworks Featuring Reversible Crystalline-Phase Transformation for Electrochemical Sodium Storage. **2016**, 138, 16533-16541	97
901	Ultradispersed Nanoarchitecture of LiV3O8 Nanoparticle/Reduced Graphene Oxide with High-Capacity and Long-Life Lithium-Ion Battery Cathodes. **2016**, 6, 19843	23
900	Modeling and simulation of the zinc-nickel single flow batteries based on MATLAB/Simulink. **2016**, 6, 125302	5
899	Origin of stabilization and destabilization in solid-state redox reaction of oxide ions for lithium-ion batteries. **2016**, 7, 13814	249
898	Silicene: Recent theoretical advances. **2016**, 3, 040802	77
897	Graphene-assisted synthesis of three-dimensional Ni/Co hydroxide nanowire network with enhanced electrochemical capacitive performance. **2016**, 5, 260-267	4
896	Organic Redox Species in Aqueous Flow Batteries: Redox Potentials, Chemical Stability and Solubility. **2016**, 6, 39101	146
895	Silicon clathrates for lithium ion batteries: A perspective. **2016**, 3, 040805	14
894	Properties of mesoporous carbon modified carbon felt for anode of all-vanadium redox flow battery. **2016**, 59, 1037-1050	13
893	Vanadium Redox Flow Batteries: Potentials and Challenges of an Emerging Storage Technology. **2016**, 10, 20-31	37
892	Rechargeable Mg□i hybrid batteries: status and challenges. **2016**, 31, 3125-3141	75
891	The influence of novel bromine sequestration agents on zinc/bromine flow battery performance. **2016**, 6, 110548-110556	29
890	Analysis of internal reaction and mass transfer of zinc-nickel single flow battery. **2016**, 8, 064102	8
889	Negative price spikes at power markets: the role of energy policy. **2016**, 50, 271-289	4

888	pH in Grand Canonical Statistics of an Electrochemical Interface. **2016**, 120, 29135-29143	60
887	The role of nanotechnology in the development of battery materials for electric vehicles. **2016**, 11, 1031-1038	462
886	Ageing of different types of batteries when enabling a PV power plant to enter electricity markets. **2016**,	4
885	Free-standing Ca2Ge7O16 nanorod arrays anode with long-term stability and superior rate capability in lithium ion batteries. **2016**, 783, 15-21	2
884	Challenges and new opportunities of in situ NMR characterization of electrochemical processes. **2016**,	6
883	Bifunctional Ion-Conducting Polymer Electrolyte for the Vanadium Redox Flow Battery with High Selectivity. **2016**, 163, A2563-A2570	15
882	Research Progress in Magnesium Alloys as Functional Materials. **2016**, 45, 2269-2274	24
881	A Zn<-ZnO loop for terawatt-scale storage of solar electricity. **2016**,	
880	Sodium and Manganese Stoichiometry of P2-Type Na2/3MnO2. **2016**, 128, 12952-12955	24
879	Wasserbasierte Redox-Flow-Batterie mit hoher Kapazität und Leistung: das TEMPTMA/MV-System. **2016**, 128, 14639-14643	35
878	First-principles effective Hamiltonian simulation of ABO3-type perovskite ferroelectrics for energy storage application. **2016**, 120, 074106	7
877	Solar Electricity and Solar Fuels: Status and Perspectives in the Context of the Energy Transition. **2016**, 22, 32-57	239
876	Li+-conductive Li2SiO3 stabilized Li-rich layered oxide with an in situ formed spinel nano-coating layer: toward enhanced electrochemical performance for lithium-ion batteries. **2016**, 6, 34245-34253	25
875	Carbon fiber cloth@VO2 (B): excellent binder-free flexible electrodes with ultrahigh mass-loading. **2016**, 4, 6426-6432	51
874	Mesoporous soft carbon as an anode material for sodium ion batteries with superior rate and cycling performance. **2016**, 4, 6472-6478	227
873	Excellent cycling stability and superior rate capability of a graphene-amorphous FePO4 porous nanowire hybrid as a cathode material for sodium ion batteries. **2016**, 8, 8495-9	35
872	Ultrafine Fe3O4 Quantum Dots on Hybrid Carbon Nanosheets for Long-Life, High-Rate Alkali-Metal Storage. **2016**, 3, 38-44	29
871	Investigation of sodium insertion-extraction in olivine NaxFePO4 (0 ≤ 1) using first-principles calculations. **2016**, 18, 13045-51	31

870	High performance of zinc-ferrum redox flow battery with Ac/HAc buffer solution. **2016**, 25, 495-499	23
869	Cross-linked branching nanohybrid polymer electrolyte with monodispersed TiO2 nanoparticles for high performance lithium-ion batteries. **2016**, 317, 103-111	51
868	In operando observation of temperature-dependent phase evolution in lithium-incorporation olivine cathode. **2016**, 22, 406-413	24
867	Computational analysis of the zinc utilization in the primary zinc-air batteries. **2016**, 102, 694-704	21
866	Uniform distribution of 1-D SnO2 nanorod arrays anchored on 2-D graphene sheets for reversible sodium storage. **2016**, 154, 54-60	16
865	Influence of synthesis parameters on the properties of LiFePO4/C cathode material. **2016**, 24, 427-432	1
864	Engineering of Two-dimensional Cobalt-Glycine Complex Thin Sheets of Vertically Aligned Nanosheet Basic Building Blocks for High Performance Supercapacitor Electrode Materials. **2016**, 210, 462-473	15
863	Recent progress in rechargeable alkali metal–air batteries. **2016**, 1, 4-17	171
862	A carbon-free lithium-ion solid dispersion redox couple with low viscosity for redox flow batteries. **2016**, 323, 97-106	34
861	Edge-halogenated graphene nanoplatelets with F, Cl, or Br as electrocatalysts for all-vanadium redox flow batteries. **2016**, 26, 233-240	82
860	Diffusion-induced 7Li NMR spin-lattice relaxation of fully lithiated, mixed-conducting Li7Ti5O12. **2016**, 287, 77-82	13
859	Exploring the incorporation of nitrogen in titanium and its influence on the electrochemical corrosion resistance in acidic media. **2016**, 650, 272-278	6
858	Enhancing the safety and electrochemical performance of ether based lithium sulfur batteries by introducing an efficient flame retarding additive. **2016**, 6, 53560-53565	17
857	Molten salt synthesis of nitrogen doped porous carbon: a new preparation methodology for high-volumetric capacitance electrode materials. **2016**, 4, 9832-9843	124
856	Progress in electrolytes for rechargeable Li-based batteries and beyond. **2016**, 1, 18-42	265
855	Practical Strategies for Storage Operation in Energy Systems: Design and Evaluation. **2016**, 7, 1602-1610	20
854	Hollow K0.27MnO2 Nanospheres as Cathode for High-Performance Aqueous Sodium Ion Batteries. **2016**, 8, 14564-71	66
853	Effect of liquid oil additive on lithium-ion battery ceramic composite separator prepared with an aqueous coating solution. **2016**, 675, 341-347	12

852	Ion exchange conversion of solid electrolyte, potassium sodiostannate, into isomorphous metastable sodium stannate. **2016**, 26, 246-247	2
851	High rate and stable cycling of lithium-sulfur batteries with carbon fiber cloth interlayer. **2016**, 209, 691-699	59
850	Surface and Interface Issues in Spinel LiNi0.5Mn1.5O4: Insights into a Potential Cathode Material for High Energy Density Lithium Ion Batteries. **2016**, 28, 3578-3606	224
849	Facile synthesis of Mn3O4/reduced graphene oxide nanocomposites with enhanced capacitive performance. **2016**, 684, 366-371	32
848	In situ and operando atomic force microscopy of high-capacity nano-silicon based electrodes for lithium-ion batteries. **2016**, 8, 14048-56	55
847	The performance of all vanadium redox flow batteries at below-ambient temperatures. **2016**, 107, 784-790	22
846	Bottle-necked ionic transport in Li 2 ZrO 3 : high temperature neutron diffraction and impedance spectroscopy. **2016**, 209, 574-581	18
845	Relationship between activity and structure of carbon materials for Br2/Br□n zinc bromine flow batteries. **2016**, 6, 40169-40174	29
844	Facile one-step synthesis of highly graphitized hierarchical porous carbon nanosheets with large surface area and high capacity for lithium storage. **2016**, 6, 51146-51152	2
843	Tailoring the Electrode Interface with Enhanced Electron Transfer for High-Rate Lithium-Ion Battery Anodes. **2016**, 55, 6643-6648	3
842	High Performance Liquid Metal Battery with Environmentally Friendly Antimony-Tin Positive Electrode. **2016**, 8, 12830-5	52
841	Composite anion exchange membranes based on quaternized cardo-poly(etherketone) and quaternized inorganic fillers for vanadium redox flow battery applications. **2016**, 41, 10766-10775	27
840	Fast Conduction of Organic Cations in Metal Sulfate Frameworks. **2016**, 28, 3968-3975	17
839	Microplasma-assisted bottom-up synthesis of graphene nanosheets with superior sodium-ion storage performance. **2016**, 4, 7624-7631	18
838	Ionothermal Synthesis of High-Voltage Alluaudite Na2+2xFe2-x(SO4)3 Sodium Insertion Compound: Structural, Electronic, and Magnetic Insights. **2016**, 8, 6982-91	52
837	Carbon Nanotubes Produced from Ambient Carbon Dioxide for Environmentally Sustainable Lithium-Ion and Sodium-Ion Battery Anodes. **2016**, 2, 162-8	116
836	Rechargeable dual-metal-ion batteries for advanced energy storage. **2016**, 18, 9326-33	66
835	Saltwater as the energy source for low-cost, safe rechargeable batteries. **2016**, 4, 7207-7213	18

834	Ruthenium oxide coated ordered mesoporous carbon nanofiber arrays: a highly bifunctional oxygen electrocatalyst for rechargeable Zn–air batteries. **2016**, 4, 6282-6289	52
833	In situ synthesis of carbon fiber-supported SiOx as anode materials for lithium ion batteries. **2016**, 6, 32798-32803	11
832	A low-dissipation, pumpless, gravity-induced flow battery. **2016**, 9, 1760-1770	30
831	The mechanics of large-volume-change transformations in high-capacity battery materials. **2016**, 9, 480-494	78
830	Effect of short-time external short circuiting on the capacity fading mechanism during long-term cycling of LiCoO2/mesocarbon microbeads battery. **2016**, 318, 154-162	20
829	Enhanced cycling stability of Li-rich nanotube cathodes by 3D graphene hierarchical architectures for Li-ion batteries. **2016**, 112, 11-19	22
828	Fabrication of Binder-Free Pencil-Trace Electrode for Lithium-Ion Battery: Simplicity and High Performance. **2016**, 32, 4415-23	21
827	Li3V2(PO4)3/nitrogen-doped reduced graphene oxide nanocomposite with enhanced lithium storage properties. **2016**, 20, 1983-1990	4
826	Synthesis of nitrogen-containing hollow carbon microspheres by a modified template method as anodes for advanced sodium-ion batteries. **2016**, 105, 103-112	64
825	Room temperature performance of 4 V aqueous hybrid supercapacitor using multi-layered lithium-doped carbon negative electrode. **2016**, 326, 711-716	16
824	Synthesis of Li2Si2O5-coated LiNi0.6Co0.2Mn0.2O2 cathode materials with enhanced high-voltage electrochemical properties for lithium-ion batteries. **2016**, 674, 447-454	71
823	Vanadium nitride supercapacitors: Effect of Processing Parameters on electrochemical charge storage behavior. **2016**, 207, 37-47	50
822	Rational design of graphitic carbon based nanostructures for advanced electrocatalysis. **2016**, 4, 8497-8511	66
821	An electron injection promoted highly efficient electrocatalyst of FeNi3@GR@Fe-NiOOH for oxygen evolution and rechargeable metal–air batteries. **2016**, 4, 7762-7771	55
820	Comparative study of Li2ZnTi3O8 anode material with good high rate capacities prepared by solid state, molten salt and sol–gel methods. **2016**, 771, 10-16	21
819	Atomistic simulations of electrochemical metallization cells: mechanisms of ultra-fast resistance switching in nanoscale devices. **2016**, 8, 14037-47	17
818	Nanostructured electrode materials for lithium-ion and sodium-ion batteries via electrospinning. **2016**, 59, 287-321	109
817	Fast charging technique for high power LiFePO4 batteries: A mechanistic analysis of aging. **2016**, 321, 201-209	117

816	Sodium insertion cathode material Na0.67[Ni0.4Co0.2Mn0.4]O2 with excellent electrochemical properties. **2016**, 208, 142-147	27
815	Rapid synthesis of three-dimensional network structure CuO as binder-free anode for high-rate sodium ion battery. **2016**, 320, 20-27	40
814	First principles study of nanostructured TiS2 electrodes for Na and Mg ion storage. **2016**, 320, 322-331	35
813	Substrate Integrated Nickel–Iron Ultrabattery with Extraordinarily Enhanced Performances. **2016**, 1, 82-88	26
812	Electrochemically active, novel layered m -ZnV 2 O 6 nanobelts for highly rechargeable Na-ion energy storage. **2016**, 205, 62-69	18
811	Microwave Plasma Chemical Vapor Deposition of SbxOy/C negative electrodes and their compatibility with lithium and sodium Hckel salts–Based, tailored electrolytes. **2016**, 210, 395-400	15
810	Insights into the Impact of the Nafion Membrane Pretreatment Process on Vanadium Flow Battery Performance. **2016**, 8, 12228-38	125
809	Bacteria Absorption-Based Mn2P2O7-Carbon@Reduced Graphene Oxides for High-Performance Lithium-Ion Battery Anodes. **2016**, 10, 5516-24	61
808	Towards polyvalent ion batteries: A zinc-ion battery based on NASICON structured Na3V2(PO4)3. **2016**, 25, 211-217	436
807	Uncovering the Evolution of Lead In-Use Stocks in Lead-Acid Batteries and the Impact on Future Lead Metabolism in China. **2016**, 50, 5412-9	30
806	A universal strategy to prepare porous graphene films: binder-free anodes for high-rate lithium-ion and sodium-ion batteries. **2016**, 4, 8837-8843	49
805	Binding TiO2-B nanosheets with N-doped carbon enables highly durable anodes for lithium-ion batteries. **2016**, 4, 8172-8179	43
804	High rate capabilities of HF-etched SiOC anode materials derived from polymer for lithium-ion batteries. **2016**, 6, 43316-43321	27
803	COF-Net on CNT-Net as a Molecularly Designed, Hierarchical Porous Chemical Trap for Polysulfides in Lithium-Sulfur Batteries. **2016**, 16, 3292-300	169
802	Facile Synthesis of Carbon-Coated Silicon/Graphite Spherical Composites for High-Performance Lithium-Ion Batteries. **2016**, 8, 12109-17	101
801	A Coordination Chemistry Approach for Lithium-Ion Batteries: The Coexistence of Metal and Ligand Redox Activities in a One-Dimensional Metal-Organic Material. **2016**, 55, 4935-40	56
800	Sulfur/Nitrogen Dual-doped Porous Graphene Aerogels Enhancing Anode Performance of Lithium Ion Batteries. **2016**, 205, 188-197	110
799	An innovative electronically-conducting matrix of the cathode for sodium sulfur battery. **2016**, 320, 37-42	13

798	Synergistically enhanced activity of graphene quantum dots/graphene hydrogel composites: a novel all-carbon hybrid electrocatalyst for metal/air batteries. **2016**, 8, 11398-402	51
797	Graphene decorated with bimodal size of carbon polyhedrons for enhanced lithium storage. **2016**, 106, 9-19	23
796	Inverse vulcanization of bismaleimide and divinylbenzene by elemental sulfur for lithium sulfur batteries. **2016**, 80, 70-77	58
795	Discriminating the Mobile Ions from the Immobile Ones in Li4+xTi5O12: 6Li NMR Reveals the Main Li+ Diffusion Pathway and Proposes a Refined Lithiation Mechanism. **2016**, 120, 11372-11381	34
794	Rechargeable Lithium Batteries with Electrodes of Small Organic Carbonyl Salts and Advanced Electrolytes. **2016**, 55, 5795-5804	74
793	Organogel electrolyte for high-loading silicon batteries. **2016**, 4, 8005-8009	16
792	Hierarchical porous reduced graphene oxide/SnO 2 networks as highly stable anodes for lithium-ion batteries. **2016**, 207, 9-15	57
791	Carbon-Based Nanomaterials for Metal-Sulfur/Selenium Batteries. **2022**, 227-247	0
790	Metal□rganic frameworks and their derivatives for metal-ion (Li, Na, K and Zn) hybrid capacitors.	1
789	Molecular structure design of planar zwitterionic polymer electrode materials for all-organic symmetric batteries.	0
788	An azobenzene-modified redox-active ionic liquid electrolyte for supercapacitors.	0
787	Study on low-temperature cycle failure mechanism of a ternary lithium ion battery. **2022**, 12, 20755-20761	0
786	Computational Screening of Bimetallene for the Composite Lithium Metal Anode.	0
785	Montmorillonite as a Sodium□on□onductor Interface for Stable Sodium Metal Anodes.	0
784	High-performance supercapacitors based on amorphous carbon derived from natural Ramulus mori. **2022**, 3, 6878-6886	0
783	One-pot fabrication of N-doped hierarchical porous carbon derived from sponge for lithium-ion battery. **2022**, 4, 100529	0
782	Advanced layered oxide cathodes for sodium/potassium-ion batteries: Development, challenges and prospects. **2023**, 452, 139438	3
781	The quest for negative electrode materials for Supercapacitors: 2D materials as a promising family. **2023**, 452, 139455	3

780	Correlation between grain boundary coating and chemomechanics in Ni-rich layered Li cathodes. **2023**, 452, 139442	0
779	Homogeneously distributed heterostructured interfaces in rice panicle-like SbBi-Bi2Se3-Sb2Se3 nanowalls for robust sodium storage. **2023**, 452, 139363	1
778	Oxygen vacancies refilling and potassium ions intercalation of δ-manganese dioxide with high structural stability toward 2.3 V high voltage asymmetric supercapacitors. **2023**, 629, 1039-1048	0
777	Leveraging Advanced X-ray Imaging for Sustainable Battery Design. **2022**, 7, 3151-3176	0
776	Shape-Memory Electrochemical Energy Storage Devices.	0
775	Dual Confinement of Si Nanoparticles in a MXene/ZIF-8-Derived Carbon Framework for Lithium-Ion Batteries. **2022**, 5, 12720-12728	0
774	Electrochemical investigation of MoSeTe as an anode for sodium-ion batteries. **2022**, 88, 430-438	0
773	Interspace and Vacancy Modulation: Promoting the Zinc Storage of Alcohol-Based Organic–Inorganic Cathode in Water–Organic Electrolyte. 2203920	0
772	Thianthrene-Based Bipolar Redox-Active Molecules Toward Symmetric All-Organic Batteries. **2022**, 10, 11739-11750	1
771	Hollow Na0.62K0.05Mn0.7Ni0.2Co0.1O2 polyhedra with exposed stable {001} facets and K riveting for sodium-ion batteries.	4
770	Bottom-Up Construction of Fluorene-Based Porous Aromatic Frameworks for Ultrahigh-Capacity and High-Rate Alkali Metal-Ion Batteries. 2204539	1
769	Real-Time Applications of Polymer Nanocomposites. **2022**, 195-212	0
768	Suppression of Gas Crossover and Dendrite Growth in Sodium–Gas Batteries across a Wide Operating Temperature Range.	0
767	Stabilized cathode/sulfide solid electrolyte interface via Li2ZrO3 coating for all-solid-state batteries. **2022**, 41, 3639-3645	1
766	Ammonium-Functionalized Naphthalene Diimide as Two-Electron-Transfer Negolyte for Aqueous Redox Flow Batteries.	1
765	Ru-Doping of P2-NaxMn0.75Ni0.25O2-Layered Oxides for High-Energy Na-Ion Battery Cathodes: First-Principles Insights on Activation and Control of Reversible Oxide Redox Chemistry. **2022**, 5, 10721-10730	1
764	Transition Metal Assisting Pre-Lithiation Reduces the P/N Ratio to Balance the Energy Density and Cycle Life of Aqueous Batteries. 2202447	0
763	Hollow FeOOH nanorods decorated with MnO2 nanosheets as electrode materials for high-performance asymmetric supercapacitors.	0

762	Lambda Carrageenan as a Water-Soluble Binder for Silicon Anodes in Lithium-Ion Batteries. **2022**, 10, 12620-12629	1
761	In-situ construction of MnFe mixed oxides nanoparticles on reduced graphene oxide with superior lithium storage property. **2022**, 47, 34605-34615	0
760	Strategies to enhance Li+ transference number in liquid electrolytes for better lithium batteries.	0
759	Cl/Cl3 Redox Voltammetry to Recognize the Interfacial Layer on Positively Electrified Carbon in Water-in-Salt Electrolytes. **2022**, 94, 12691-12698	0
758	Sb particles embedded in N-doped carbon spheres wrapped by graphene for superior K+ Storing performances. **2022**,	0
757	Graphene: A Path-Breaking Discovery for Energy Storage and Sustainability. **2022**, 15, 6241	0
756	Enhancing I 0 /I - conversion efficiency by starch confinement in zinc odine battery.	0
755	Gallium-Telluride-Based Composite as Promising Lithium Storage Material. **2022**, 12, 3362	0
754	Optimal Dispatch of Multi-Type CHP Units Integrated with Flexibility Renovations for Renewable Energy Accommodation. **2022**, 15, 7166	0
753	A Silk Protein-Based Eutectogel as a Freeze-Resistant and Flexible Electrolyte for Zn-Ion Hybrid Supercapacitors. **2022**, 14, 44821-44831	1
752	MOF-Derived Bimetallic Pd Co Alkaline ORR Electrocatalysts. **2022**, 14, 44735-44744	1
751	Mixed cobalt inc hexacyanoferrate hollow micro-cubes for a high-voltage hybrid supercapacitor.	0
750	A single-layer piezoelectric composite separator for durable operation of Li metal anode at high rates.	0
749	Improvement strategies toward stable lithium metal anodes for high-energy batteries.	0
748	Recent Progress in Developing a LiOH-based Reversible Nonaqueous Lithium-Air Battery. 2201384	1
747	Iron Sulfide Na 2 FeS 2 as Positive Electrode Material with High Capacity and Reversibility Derived from Anion Cation Redox in All-Solid-State Sodium Batteries. 2203383	0
746	Taurine Electrografting onto Porous Electrodes Improves Redox Flow Battery Performance. **2022**, 14, 41883-41895	0
745	Cellulose Acetate-Based High-Electrolyte-Uptake Gel Polymer Electrolyte for Semi-Solid-State Lithium-Oxygen Batteries with Long-Cycling Stability.	2

744	Recent Advancements in Devising Computational Strategies for Dual-Ion Batteries.	0
743	Tailoring the Void Space of a Silicon Anode for High-Capacity and Low-Expansion Lithium Storage. 2200236	0
742	Copper Collector Generated Cu+/Cu2+ Redox Pair for Enhanced Efficiency and Lifetime of ZnNi/Air Hybrid Battery.	2
741	Ni-Containing Electrolytes for Superior Zinc-Ion Aqueous Batteries with Zinc Hexacyanoferrate Cathodes. **2022**, 7, 33942-33948	0
740	Sb/N-Doped Carbon Nanofiber as a Sodium-Ion Battery Anode. 2200746	0
739	Synergistic Modification of Fe-Based Prussian Blue Cathode Material Based on Structural Regulation and Surface Engineering. **2022**, 14, 43308-43318	0
738	Carbonaceous-Material-Induced Gelation of Concentrated Electrolyte Solutions for Application in LithiumSulfur Battery Cathodes.	0
737	Recent advances in cellulose-based polymer electrolytes.	0
736	Deciphering H+/Zn2+ co-intercalation mechanism of MOF-derived 2D MnO/C cathode for long cycle life aqueous zinc-ion batteries. **2022**, 41, 3729-3739	0
735	Non-Noble Metal Ion-Based Metal-Organic Framework Electrocatalyst for Electrochemical Hydrogen Generation. **2022**, 101-120	0
734	Combining Quantum Dot and Perovskite Photovoltaic Cells for Efficient Photon to Electricity Conversion in Energy Storage Devices. **2022**, 10, 2200598	0
733	Ga2Te3-Based Composite Anodes for High-Performance Sodium-Ion Batteries. **2022**, 15, 6231	0
732	Thermal Runaway of Nonflammable Localized High-Concentration Electrolytes for Practical LiNi 0.8 Mn 0.1 Co 0.1 O 2 |Graphite-SiO Pouch Cells. 2204059	3
731	Recent Advancement in Rational Design Modulation of MXene: A Voyage from Environmental Remediation to Energy Conversion and Storage.	1
730	CO2 Laser Sintering of Garnet-Type Solid-State Electrolytes. 3392-3400	1
729	Enhanced interfacial and structural stability of Ni-rich LiNi0.96Mg0.02Ti0.02O2 cathode using a CeO2-coating technique.	0
728	State of Charge Estimation in Electric Vehicles Using Improved Strong Tracking Kalman Filter Algorithm.	0
727	Bi2Se3 Nanostructured Thin films as Perspective Anodes for Aqueous Rechargeable Lithium-Ion Batteries. **2022**, 8, 144	0

726	In situ atomic-scale observation of size-dependent (de)potassiation and reversible phase transformation in tetragonal FeSe anodes.	0
725	Two-Dimensional Fluorinated Graphene Reinforced Solid Polymer Electrolytes for High-Performance Solid-State Lithium Batteries. 2200967	4
724	Comparative Analysis of LiMPO4 (M = Fe, Co, Cr, Mn, V) as Cathode Materials for Lithium-Ion Battery Applications: A First-Principle-Based Theoretical Approach. **2022**, 12, 3266	0
723	Rechargeable Batteries for Grid Scale Energy Storage.	14
722	Development of Proteins for High-Performance Energy Storage Devices: Opportunities, Challenges, and Strategies. 2202568	0
721	Review on recent advances in two-dimensional nanomaterials-based cathodes for lithium-sulfur batteries.	0
720	Anion Donicity of Liquid electrolytes for Lithium Carbon Fluoride Batteries.	0
719	Ion Migration Mechanism: An Overall Understanding of Anionic Redox Activity in Metal Oxide Cathodes of Li/Na-Ion Batteries. 2206039	3
718	Regulating Polysulfide Conversion Kinetics Using Tungsten Diboride as Additive For High-Performance Li-S Battery. 2203222	1
717	High-Energy and Long-Lasting Organic Electrode for a Rechargeable Aqueous Battery. 3637-3645	0
716	A novel exfoliated manganese phosphoselenide as a high-performance anode material for lithium ions storage. 10,	0
715	Facile Electroless Plating Method to Fabricate a Nickel–Phosphorus-Modified Copper Current Collector for a Lean Lithium-Metal Anode.	1
714	Symmetric supercapacitor device applications of rGO / Co3O4 / polypyrrole nanocomposites.	0
713	Boosting Charge Transfer Via Heterostructure Engineering of Ti 2 CT x /Na 2 Ti 3 O 7 Nanobelts Array for Superior Sodium Storage Performance. 2203948	0
712	Role of Additives in Solid Electrolyte Interphase Formation in Al Anode Dual-Ion Batteries.	0
711	Anion Donicity of Liquid electrolytes for Lithium Carbon Fluoride Batteries.	0
710	Faceted Antimony Particles with Interiors Reinforced with Reduced Graphene Oxide as High-Performance Anode Material for Sodium-Ion Batteries.	0
709	Important Impact of the Slurry Mixing Speed on Water-Processed Li4Ti5O12 Lithium-Ion Anodes in the Presence of H3PO4 as the Processing Additive. **2022**, 14, 43237-43245	0

708	Role of Interfaces in Solid-State Batteries. 2206402	2
707	Soft-rigid sandwich-structured hybrid electrolytes based on polymer-in-ceramic electrolytes for stable-cycle solid-state lithium-metal batteries.	0
706	Facile synthesis of yolk-shell CoS2@FeS2@NC hollow microspheres for advanced lithium-ion batteries anode materials.	0
705	Connection of Bipolar Plate with Graphite Felt Electrode for Vanadium Flow Battery Using a Powder Thermal Unification Method.	0
704	Partial deligandation activated ZIF-67 for efficient electrocatalytic oxygen reduction reaction. 10,	1
703	Columnar Liquid-crystalline Triazine-based Dendrimer with Carbon Nanotube Filler for Efficient Organic Lithium-ion Batteries. **2022**, 141306	0
702	Effect of fluoroethylene carbonate additive on the low□temperature performance of lithium□ion batteries. **2022**, 116870	1
701	Molten salts for rechargeable batteries. **2022**,	0
700	Structural, dielectric, electric, transport, and optical properties of a double perovskite: BaKFeMoO6. **2022**,	0
699	Surface Degradation of Single-crystalline Ni-rich Cathode and Regulation Mechanism by Atomic Layer Deposition in Quasi-Solid-State Lithium Batteries.	0
698	High-Voltage Symmetric Nonaqueous Redox Flow Battery Based on Modularly Tunable [Ru2M(□3-O)(CH3CO2)6(py)3] (M = Ru, Mn, Co, Ni, Zn) Cluster Compounds with Multielectron Storage Capability. 2159-2165	0
697	Alloy-Type Lithium Anode Prepared by Laser Microcladding and Dealloying for Improved Cycling/Rate Performance.	0
696	Operando monitoring of the open circuit voltage during electrolyte filling ensures high performance of lithium-ion batteries. **2022**, 107874	0
695	Revealing An Intercalation-Conversion-Heterogeneity Hybrid Lithium-Ion Storage Mechanism in Transition Metal Nitrides Electrodes with Jointly Fast Charging Capability and High Energy Output. 2203895	0
694	Hewettite ZnV6O16□3H2O with Remarkably Stable Layers and Ultralarge Interlayer Spacing for High-Performance Aqueous Zn-Ion Batteries.	0
693	Hewettite ZnV6O16□3H2O with Remarkably Stable Layers and Ultralarge Interlayer Spacing for High-Performance Aqueous Zn-Ion Batteries.	0
692	Role of Morphology of Platinum-Based Nanoclusters in ORR/OER Activity for Nonaqueous Li□Air Battery Applications.	0
691	Facile synthesis of nickel-based bimetallic metalorganic frameworks with different cobalt ratios as electrode material for electrochemical supercapacitors. **2022**, 128,	0

690	Linear correlation between state-of-health and incremental state-of-charge in Li-ion batteries and its application to SoH evaluation. **2022**, 141300	1
689	Solid-State NMR Studies of Coatings and Interfaces in Batteries. **2022**, 101638	0
688	Surface-Engineered Ti3C2Tx MXene Enabling Rapid Sodium/Potassium Ion Storage.	2
687	Schiff-Base Covalent Organic Framework/Carbon Nanotubes Composite for Advanced Potassium-Ion Batteries.	0
686	Multi-strategy synergistic in-situ constructed gel electrolyte-binder system for high-performance lithium-ion batteries with Si-based anode. **2022**, 141299	0
685	A high-tortuosity holey graphene in-situ derived from cytomembrane/cytoderm boosts ultrastable potassium storage. **2022**,	0
684	Surface Degradation of Single-crystalline Ni-rich Cathode and Regulation Mechanism by Atomic Layer Deposition in Quasi-Solid-State Lithium Batteries.	2
683	Electricity storage requirements to support the transition towards high renewable penetration levels Application to the Greek power system. **2022**, 55, 105748	0
682	Optimal hydrogen carrier: Holistic evaluation of hydrogen storage and transportation concepts for power generation, aviation, and transportation. **2022**, 55, 105714	0
681	An in-situ electrochemical oxidation strategy of VPO4 and its performance as a cathode in aqueous Zn-ion batteries. **2022**, 924, 116837	0
680	In-situ synthesis of porous metal fluoride@carbon composite via simultaneous etching/fluorination enabled superior Li storage performance. **2022**, 103, 107862	2
679	Facile synthesis of amorphous carbon-coated bismuth phosphate nanocomposite for lithium-ion battery anode with ultra-long cycle stability. **2022**, 316, 123588	0
678	Strategies and challenges of carbon materials in the practical applications of lithium metal anode: a review.	2
677	Structural engineering of bimetallic selenides for high-energy density sodium-ion half/full batteries.	1
676	Chemistry of Li-air batteries. **2022**,	0
675	In-situ Modification of Carbon Nanotubes with Metallic Bismuth Nanoparticles for Uniform Lithium Deposition. **2022**, 208	0
674	The Mechanical Properties of Batteries and Supercapacitors. **2022**,	0
673	Chemical Bonding With Plane Waves. **2022**,	0

672	Beneficial combination of formic acid as processing additive and fluoroethylene carbonate as electrolyte additive for Li4Ti5O12 lithium-ion anodes.	0
671	Novel Design Aspects of All-Solid-State Batteries. **2022**, 157-191	0
670	Biopolymer Based Materials as Alternative Greener Binders for Sustainable Electrochemical Energy Storage Applications. **2022**, 7,	0
669	A Carboxylic Ester-Based Electrolyte with Additive to Improve Performance of Lithium Batteries at Ultra-Low Temperature. **2022**, 169, 100539	1
668	Prussian Blue Analogue-Derived ZnO/ZnFe2O4 Core-Shell Nanospheres as High-Performance Anodes for Lithium-Ion and Potassium-Ion Batteries.	0
667	Exploring 2D Energy Storage Materials: Advances in Structure, Synthesis, Optimization Strategies, and Applications for Monovalent and Multivalent Metal-Ion Hybrid Capacitors. 2205101	0
666	Zn-MOF-74-Derived Carbon Nanorods as an Efficient Se Host for K-Se Batteries. **2022**, 5, 13023-13030	0
665	NiCo2O4@V2O5 nanobelts as electrode materials for efficient electrochemical charge storage.	0
664	Solvent-free protic liquid enabling batteries operation at an ultra-wide temperature range. **2022**, 13,	0
663	Quasi-Solid-State Ion-Conducting Arrays Composite Electrolytes with Fast Ion Transport Vertical-Aligned Interfaces for All-Weather Practical Lithium-Metal Batteries. **2022**, 14,	0
662	3D Sodiophilic Ti3C2 MXene@g-C3N4 Hetero-Interphase Raises the Stability of Sodium Metal Anodes. **2022**, 16, 17197-17209	0
661	Introduction to Zinc‐Air Batteries. **2022**, 1-34	0
660	NaPON Doping of Na4P2S7 Glass and Its Effects on the Structure and Properties of Mixed Oxy-Sulfide-Nitride Phosphate Glass.	0
659	Effect of Extremely Short-Sized MWCNT as Additive Material in High Surface Area Activated Carbon and Its Enhanced Electrical LIC Performance. **2022**, 27, 7033	0
658	Robust carbon nanotube-interwoven KFeSO4F microspheres as reliable potassium cathodes. **2022**,	2
657	Uniformly MXene-Grafted Eutectic Aluminum-Cerium Alloys as Flexible and Reversible Anode Materials for Rechargeable Aluminum-Ion Battery. 2211271	0
656	Anchoring Metal-Organic Framework-Derived ZnTe@C onto Elastic Ti 3 C 2 T x MXene with 0D/2D Dual Confinement for Ultrastable Potassium-Ion Storage. 2203118	1
655	Acceleration of Cathode Interfacial Kinetics by Liquid Organosulfides in Lithium Metal Batteries.	2

654	Untangling Degradation Chemistries of Lithium-Sulfur Batteries Through Interpretable Hybrid Machine Learning.	2
653	Untangling Degradation Chemistries of Lithium-Sulfur Batteries Through Interpretable Hybrid Machine Learning.	0
652	Self-propagating fabrication of SiO x @rGO film with superior cycling stability and rate performance as anode for lithium-ion batteries. **2022**, 9, 044006	0
651	Electrochemical performance of KTiOAsO4 (KTA) in potassium-ion batteries from density-functional theory. **2022**, 6,	0
650	Water-tolerant solid polymer electrolyte with high ion-conductivity for simplified battery manufacturing in air surroundings. **2022**, 121, 153905	1
649	Evaluating Electrolyte–Anode Interface Stability in Sodium All-Solid-State Batteries. **2022**, 14, 47706-47715	1
648	Recent advances based on Mg anodes and their interfacial modulation in Mg batteries. **2022**,	0
647	Bifunctional Liquid Metals Allow Electrical Insulating Phase Change Materials to Dual-Mode Thermal Manage the Li-Ion Batteries. **2022**, 14,	2
646	Assessment of Battery Energy Storage Systems Using the Intuitionistic Fuzzy Removal Effects of Criteria and the Measurement of Alternatives and Ranking Based on Compromise Solution Method. **2022**, 15, 7782	0
645	Performance of a Novel In-Situ Converted Additive for High Voltage Li-ion Pouch Cells. **2022**, 169, 100552	0
644	Binary Metal Single Atom Electrocatalysts with Synergistic Catalytic Activity toward High-Rate and High Areal-Capacity Lithium–Sulfur Batteries. 2208666	3
643	Catalytic effect of carbon-based electrode materials in energy storage devices.	3
642	Understanding fast ion dynamics in Li4Na x Ti5O12: From interfacial to extended Li+ and Na+ dynamics in its mixed-conducting solid solutions.	0
641	Enhanced Electrochemical Performances of Mn3O4/Heteroatom-Doped Reduced Graphene Oxide Aerogels as an Anode for Sodium-Ion Batteries. **2022**, 12, 3569	1
640	A Coordinated Pumped Storage Dual Compensated Hydro Governor with PSS Action to Damp Electromechanical Power Oscillations. **2022**, 2022, 1-24	0
639	Single-Atom Yttrium Engineering Janus Electrode for Rechargeable Na–S Batteries. **2022**, 144, 18995-19007	6
638	Solvent-Assisted Hopping Mechanism Enables Ultrafast Charging of Lithium-Ion Batteries. 3947-3957	2
637	Organic interlayer engineering of TiS2 for enhanced aqueous Zn ions storage. **2022**,	0

636	S-doped crosslinked porous Si/SiO2 anode materials with excellent lithium storage performance synthesized via disproportionation. **2022**,	0
635	Nanoparticulate FeF2@C as a Li Battery Conversion Cathode.	1
634	Numerical assessment of thermal management on the capacity fade of lithium-ion batteries in electric vehicles. 2,	1
633	Acceleration of Cathode Interfacial Kinetics by Liquid Organosulfides in Lithium Metal Batteries.	0
632	Suppressing Crossover in Nonaqueous Redox Flow Batteries with Polyethylene-Based Anion-Exchange Membranes. 4118-4128	0
631	Hydrothermal synthesis of lanthanum tungstate (La2(WO4)3) for high energy density asymmetric supercapacitor. **2022**, 137,	0
630	Uniform Lithium Deposition Induced by ZnFx(OH)y for High-Performance Sulfurized Polyacrylonitrile-Based Lithium-Sulfur Batteries. **2022**, 14, 4494	0
629	BC2N nanotube as a promising anode for rechargeable calcium ion batteries. **2022**, 126926	0
628	Bimetallic CuSbSe2: A potential anode material for sodium and lithium-ion batteries with high-rate capability and long-term stability.	0
627	Tuning Intermolecular Interactions to Enhance the Cyclability of Non-Aqueous, Organic Redox Flow Batteries.	0
626	Defect-Induced Dense Amorphous/Crystalline Heterophase Enables High-Rate and Ultrastable Sodium Storage. 2205575	4
625	V 2 O 5 as a versatile electrode material for post-lithium energy storage systems.	0
624	Electrochemical Testing of Carbon Materials as Bromine Electrodes for the Hydrogen-Bromine Redox Flow Battery. **2022**, 8, 166	0
623	Aqueous Rechargeable Sodium-Ion Batteries: From Liquid to Hydrogel. **2022**, 8, 180	0
622	Synthesis of Micron-Sized LiNi0.8Co0.1Mn0.1O2 and Its Application in Bimodal Distributed High Energy Density Li-Ion Battery Cathodes. **2022**, 15, 8129	1
621	Tetrathiafulvalene esters with high redox potentials and improved solubilities for non-aqueous redox flow battery applications. **2022**,	0
620	Stabilization of garnet/Li interphase by diluting the electronic conductor. **2022**, 8,	2
619	Size controllable single-crystalline Ni-rich cathode for high-energy lithium-ion batteries.	2

618	Electrolyte design for rechargeable anion shuttle batteries. **2022**,	0
617	Additive Manufacturing of Energy Storage Devices. **2023**, 51-83	0
616	Tailoring grain boundary structures and chemistry of Li7La3Zr2O12 solid electrolytes for enhanced air stability. **2022**,	0
615	Engineering Polymeric Nanofluidic Membranes for Efficient Ionic Transport: Biomimetic Design, Material Construction, and Advanced Functionalities.	0
614	Achieving high energy storage density simultaneously with large efficiency and excellent thermal stability by defect dipole, and microstructural engineering in modified-BaTiO ceramics. **2022**, 167887	0
613	Brittle star-like nanoweb modified carbon cloth synthesized by self-templated hollow ZIF-8 for stable Li metal anodes. **2022**, 101192	0
612	Thermodynamic analysis and parameter optimization of a Chemical Looping Electricity Storage system. **2022**, 55, 105832	0
611	A high-capacity dual-ion full battery based on nitrogen-doped carbon nanosphere anode and concentrated electrolyte.	0
610	Post lithium-sulfur battery era: challenges and opportunities towards practical application.	0
609	Diffusion mechanism and electrochemical investigation of 1T phase Al-MoS2@rGO nano-composite as a high-performance anode for sodium-ion batteries. **2022**, 140140	0
608	MXenes: Advances in the synthesis and application in supercapacitors and batteries.	0
607	Manganese-based NASICON structured Na1+2Mn Ti2-(PO4)3 as promising cathode in aqueous sodium ion battery. **2022**, 167872	0
606	Bipolar Verdazyl Radicals for Symmetrical Batteries: Properties and Stability in All States of Charge.	1
605	Synthesis and Application of an Aromatic Sulfonate Sodium Salt for Aqueous Sodium-Ion Battery Electrolytes. 2201045	0
604	Recent Progress in Constructing Halogenated Interfaces for Highly Stable Lithium Metal Anodes. **2022**,	1
603	In Situ Nitrogen Functionalization of 2D-Ti3C2Tx-MXenes for High-Performance Zn-Ion Supercapacitor. **2022**, 27, 7446	2
602	Facile fabrication of MoS2 nanocrystals confined in waste leather derived N, P co-doped carbon fiber for long-lifespan of sodium/potassium ion batteries. **2022**, 111080	0
601	Reversible lithium deposition/dissolution reaction with low polarization through a cross-linked polymer: Geometrical structure effects of the polymer protective layer on lithium metal anodes. **2022**, 386, 116045	0

600	Scalable synthesized high-performance TiO2-Si-C hybrid anode for lithium batteries. **2022**,	0
599	Operando formation of multi-channel positive electrode achieved via tellurium alloying in liquid metal battery. **2022**, 53, 927-936	0
598	Optimized structure stability and cycling performance of LiNi0.8Co0.1Mn0.1O2 through homogeneous nano-thickness Al2O3 coating. **2022**, 435, 141411	1
597	Engineering strong electronegative nitrogen-rich porous organic polymer for practical durable lithium-sulfur battery. **2022**, 551, 232212	0
596	Chemical processes for the recovery of valuable metals from spent nickel metal hydride batteries: A review. **2022**, 170, 112983	2
595	Transition Metal□/Graphene for advanced Lithium–Sulfur Batteries: A first principles study. **2022**, 808, 140118	0
594	Dual fuzzy-based adaptive extended Kalman filter for state of charge estimation of liquid metal battery. **2022**, 327, 120091	1
593	Optimal tailored preparation of Sb/Sb4O5Cl2 nanosheet composite anodes for efficient sodium-ion storage. **2022**, 436, 141429	0
592	Computational screening of bimetallene for the composite lithium metal anode. **2023**, 609, 155403	0
591	First-principles studies of the two-dimensional 1H-BeP2 as an electrode material for rechargeable metal ion (Li+, Na+, K+) batteries. **2023**, 216, 111868	0
590	Electric vehicles: a step toward sustainability. **2023**, 619-640	0
589	A comprehensive review of pre-lithiation/sodiation additives for Li-ion and Na-ion batteries. **2023**, 76, 479-494	0
588	Nanorod NiMoO4@NiCo2S4 as an advanced electrode material for high-performance supercapacitors. **2023**, 931, 167505	0
587	Exploring the potential of natural pyrrhotite mineral for electrochemical energy storage. **2023**, 54, 421-429	0
586	Battery energy storage in micro-grids. **2023**, 349-384	0
585	Mixed-phase 1T/2H-WS2 nanosheets on N-doped multichannel carbon nanofiber as current collector-integrated electrode for potassium battery anode. **2023**, 630, 823-832	0
584	Anti-pulverization intermetallic Fe□Sn anchored on N-doped carbon anode boosted superior power and stable lithium storage. **2023**, 553, 232272	0
583	Enhanced electrochromic capacity performances of hierarchical MnO2-polyaniline/PEDOT:PSS/Ag@Ni nanowires cathode for flexible and rechargeable electrochromic Zn-Ion battery. **2023**, 452, 139555	3

582	Lithium storage behavior and mechanism of hexagonal FePO4/C composite as a novel anode material for lithium-ion batteries. **2023**, 933, 167766	0
581	Two-dimensional porous □Co(OH)2 and Co3O4 hexagonal nanoplates as stable and high-performance anode for lithium-ion batteries. **2023**, 933, 167618	0
580	Synergistic engineering of structural and electronic regulation of In2Se3 for ultrastable Li□ion battery. **2023**, 453, 139841	0
579	Negating Na||Na3Zr2Si2PO12 Interfacial Resistance for Dendrite-Free and □Na-Less□Solid-State Batteries.	2
578	A Review and Analysis of Electrical Equivalent Circuit Models of Vanadium Redox Flow Battery. **2022**, 183-192	0
577	In situ visualization of synergistic effects between electrolyte additives and catalytic electrodes in Li□O2 batteries.	0
576	In situ electrochemical synthesis of Pd aerogels as highly efficient anodic electrocatalysts for alkaline fuel cells.	1
575	From Lithium to Emerging Mono- and Multivalent- Cations Based Rechargeable Batteries: Non-aqueous Organic Electrolyte and Interphase Perspective.	1
574	Two-dimensional porous CeO2@Co3O4 sheet-like heterostructures for high-performance aqueous hybrid supercapacitors.	0
573	Carbon black/electrolyte interface study by electromagnetic and electrochemical techniques in □Al2O3/poly(vinylidene fluoride)/carbon black composite materials: Application for lithium-ion batteries. **2023**, 437, 141495	0
572	Advanced ammonium salt materials for electrochemical energy storage: Recent progress and future perspectives. **2023**, 454, 140194	0
571	A multi-input single-output thermal management system design for liquid metal batteries. **2023**, 219, 119575	0
570	From nature, requite to nature: Bio-based cellulose and its derivatives for construction of green zinc batteries. **2023**, 454, 140311	1
569	Enabling robust anionic redox structure via tuning the symmetry of locally ordered lattice in Li-rich Li-Mn-O cathodes. **2023**, 454, 140327	0
568	Longitudinally grown pyrolyzed quinacridones for sodium-ion battery anode. **2023**, 453, 139805	1
567	Effect of dopants and microstructure on the electrochemical cyclic stability of layered P2-type Na0.67MnO2 prepared by different chemical routes: An experimental and theoretical study. **2022**,	0
566	A new strategy for the preparation of highly stable and high-capacity electrodes for green electrochemical extraction of lithium. **2022**, 140416	0
565	Focus on the Electroplating Chemistry of Li Ions in Nonaqueous Liquid Electrolytes: Toward Stable Lithium Metal Batteries. **2022**, 5,	0

564	Disclosing the Redox Pathway Behind the Excellent Performance of CuS in Solid-State Batteries. 2200913	0
563	Fabrication of 3D ordered mesoporous nickel phosphide for efficient hydrogen evolution reaction. **2022**,	0
562	Advances of Carbon Materials for Dual-Carbon Lithium-Ion Capacitors: A Review. **2022**, 12, 3954	0
561	Filling Selenium into Sulfur Vacancies in Ultrathin Tungsten Sulfide Nanosheets for Superior Potassium Storage.	0
560	High-performance Aqueous Zinc-organic Battery Achieved by Reasonable Molecular Design.	0
559	Porous MOF Derived TiO2/ZnO/C@CNTs composites for enhancing lithium storage performance. **2022**, 140454	1
558	Electron Storage Performance of Hybrid Materials Comprising Polyoxometalates and Carbon Nanohorns as Cathode-Active Materials.	0
557	Surface Doping vs. Bulk Doping of Cathode Materials for Lithium-Ion Batteries: A Review. **2023**, 6,	3
556	Enabling High-Rate and High-Areal-Capacity Zn Deposition via an Interfacial Preferentially Adsorbed Molecular Layer. 31-39	0
555	Brine Refrigerants for Low-cost, Safe Aqueous Supercapacitors with Ultra-long Stable Operation at Low Temperatures. 2208206	1
554	Comparative study on high-voltage safety performance of LiNixMnyCozO2 cathode with different nickel contents. **2022**, 121, 203901	1
553	Recent Progress in Bi-Based Anodes for Magnesium Ion Batteries. **2022**, 27, 7751	0
552	Exploring bonding nature, electronic, optical and thermoelectric properties of ternary compound Na2ZnCl4 via first-principles calculations. **2022**,	0
551	Key Challenges for Grid-Scale Lithium-Ion Battery Energy Storage. 2202197	2
550	Surplus energy utilization of spent lithium-ion batteries for high-profit organolithiums.	0
549	The Effects of Ultrasound Treatment of Graphite on the Reversibility of the (De)Intercalation of an Anion from Aqueous Electrolyte Solution. **2022**, 12, 3932	0
548	Carbon-Coated Flower-Like TiO2 Nanosphere as an Ultrastable Anode Material for Potassium-Ion Batteries: Structure Design and Mechanism Study.	0
547	Polyaniline-Intercalated Vanadium Dioxide Nanoflakes for High-Performance Aqueous Zinc Ion Batteries.	0

546	Iron as recyclable energy carrier: Feasibility study and kinetic analysis of iron oxide reduction. **2022**, 100096	0
545	Novel 3D Co9S8@graphene Nanocomposites Prepared by Deep Eutectic Solvents for Lithium-Ion Storage. **2022**, 168080	0
544	A density functional theory study of twin T-graphene as an anode material for Na-ion-based batteries. **2022**, 132, 194301	0
543	A simple synthesis of VSe2/B4C@HCG composite as high-performance anodes for sodium-ion batteries. **2022**, 168111	0
542	Organofluorophosphates as Oxidative Degradation Products in High-Voltage Lithium Ion Batteries with NMC or LNMO Cathodes.	0
541	Three-dimensional binder-free electrodes with high loading of electroactive material for high performance asymmetric supercapacitors. **2022**, 116988	0
540	Highly soluble organic nitrate additives for practical lithium metal batteries.	2
539	Cellulose Nanocrystals (CNC) Liquid Crystalline State in Suspension: An Overview. **2022**, 1, 244-278	0
538	Long-life lithium-metal batteries with dendrite-free anodes enabled by Zn(TFSI)2 additive. **2022**, 168108	0
537	Superlattice-Stabilized WSe 2 Cathode for Rechargeable Aluminum Batteries. 2201281	1
536	Highly stable asymmetric viologen as an anolyte for aqueous organic and halide based redox flow batteries.	0
535	TiO2/Cu2O heterostructure enabling selective and uniform lithium deposition towards stable lithium metal anodes.	1
534	A novel solid-state poly(urethane-b-siloxane) block copolymer-based electrolyte with flexibility and high ion transference number for lithium metal battery.	0
533	ECRAM Materials, Devices, Circuits and Architectures: A Perspective. 2204771	0
532	Imine-Linked Triazine-Based Conjugated Microporous Polymers/carbon nanotube composites as Organic Anode Materials for Lithium-Ion Batteries. **2022**, 130496	0
531	High-energy P2-type Na-layered oxide cathode with sequentially occurred anionic redox and suppressed phase transition. **2022**, 9, 041405	0
530	Open-circuit voltage curve reconstruction for degrading lithium-ion batteries utilizing discrete curve fragments from an online dataset. **2022**, 56, 106003	0
529	Research progress of manganese-based layered oxides as cathode materials for potassium-ion batteries. **2022**, 927, 116971	0

528	Hierarchically porous carbon derived from delignified biomass for high sulfur-loading room-temperature sodium-sulfur batteries. **2022**, 201, 832-840	0
527	Review of renewable energy curtailment in China: Current situation and solutions. **2022**,	0
526	Selection and Dimensioning of Energy Storage Systems for Standalone Communities: A Review. **2022**, 15, 8631	0
525	Dendrite-free Zinc Anode Enabled by Buffer-like Additive via Strong Cationic Specific Absorption. **2022**, 140435	0
524	A Review of the Application of Carbon Materials for Lithium Metal Batteries. **2022**, 8, 246	0
523	Multi-walled carbon nanotubes interlinked vanadium selenite nanocomposites as a positive electrode for high-performance aqueous zinc-ion batteries. **2022**, 168102	0
522	Electrospun Co3O4 Nanofibers as Potential Material for Enhanced Supercapacitors and Chemo-sensor Applications. **2022**,	0
521	The protective effect and its mechanism for electrolyte additives on the anode interface in aqueous zinc-based energy storage devices. **2022**,	0
520	Multi-Ionic Capacity of Zn-Al/V 6 O 13 Systems Enable Fast-Charging and Ultra-Stable Aqueous Aluminium-Ion Batteries. **2022**, 9,	0
519	Prospective strategies for extending long-term cycling performance of anode-free lithium metal batteries. **2023**, 54, 689-712	1
518	Synergized N, P dual-doped 3D carbon host derived from filter paper for durable lithium metal anodes. **2023**, 632, 1-10	0
517	From Na2FePO4F/CNT to NaKFePO4F/CNT as advanced cathode material for K-ion batteries. **2023**, 555, 232410	0
516	Advances in Fine Structure Optimizations of Layered Transition-Metal Oxide Cathodes for Potassium-Ion Batteries. 2202861	0
515	Electrolyte design for stable electrode-electrolyte interphase to enable high-safety and high-voltage batteries. **2023**, 15, 100216	0
514	Fast state-of-charge balancing control strategies for battery energy storage systems to maximize capacity utilization. **2023**, 57, 106269	0
513	Red phosphorus/graphite composite as a high performance anode for lithium-ion batteries. **2023**, 389, 116098	0
512	Related Applications of Solid-State Electrolytes in Lithium-Sulfur Batteries. **2022**, 12, 341-352	0
511	Graphene Coupled Flower-Like Oxidized-Polyacrylonitrile as High-Performance Anode for Sustainable Lithium-Ion Batteries.	0

510	Conformal carbon nitride thin film inter-active interphase heterojunction with sustainable carbon enhancing sodium storage performance.	0
509	Modified lithium metal anode via anions-planting protection mechanisms for dendrite-free long-life lithium metal batteries.	0
508	Impregnating ultrafine FeS2 nanoparticles within hierarchical carbon tubes for advanced potassium-ion batteries.	0
507	Electrochemical properties of aluminum ion batteries with emeraldine base polyaniline as cathode material. **2023**, 929, 117102	0
506	Interface engineering enabled high-performance layered P3-type K0.5MnO2 cathode for low-cost potassium-ion batteries. **2023**, 439, 141571	0
505	Biomass-derived carbon material as efficient electrocatalysts for the oxygen reduction reaction. **2023**, 168, 106676	0
504	Strategic N/P self-doped biomass-derived hierarchical porous carbon for regulating the supercapacitive performances. **2023**, 202, 1259-1272	0
503	High-performance aramid electrodes for high-rate and long cycle-life organic Li-ion batteries.	0
502	A redox-mediated zinc electrode for ultra-robust deep-cycle redox flow batteries.	0
501	Nanofiber-in-microfiber carbon/silicon composite anode with high silicon content for lithium-ion batteries. **2023**, 203, 436-444	1
500	Two-sided sustainability: Simulating battery degradation in vehicle to grid applications within autonomous electric port transportation. **2023**, 384, 135598	1
499	Domain-limited laminar lithium deposition behavior mediated by the design of hybrid anode for sulfide-based all-solid-state batteries. **2023**, 244, 118592	0
498	Improved electrochemical performance using well-dispersed carbon nanotubes as conductive additive in the Ni-rich positive electrode of lithium-ion batteries. **2023**, 146, 107419	0
497	A Single Ion Gel Polymer Electrolyte based on Polyimide Grafted with Lithium 3-Chloropropanesulfonyl (Trifluoromethanesulfonyl) imide for High Performance Lithium Ion Batteries.	1
496	Search for stable host materials as low-voltage anodes for lithium-ion batteries: A mini-review. **2023**, 55, 364-387	0
495	Micron SiOx encapsulated into amorphous B, N Co-doped carbon nanotube network for high-capacity and long-durable Li-ion half/full batteries. **2023**, 455, 140820	0
494	MOF-derived 3D interconnected amorphous carbon nanowire networks for robust lithium storage. **2023**, 348, 112388	0
493	Studies on sodium-ion batteries: Searching for the proper combination of the cathode material, the electrolyte and the working voltage. The role of magnesium substitution in layered manganese-rich oxides, and pyrrolidinium ionic liquid. **2023**, 439, 141654	1

492	Solid electrolyte membrane-containing rechargeable high-temperature molten salt electrolyte-based batteries.	0
491	High-performance zinc–air batteries enabled by hybridizing atomically dispersed FeN2 with Co3O4 nanoparticles.	1
490	Sodium trithiocarbonate cathode for high-performance sodium–sulfur batteries. **2022**, 11, 130-140	0
489	Solid-state lithium-sulfur battery chemistries achieving excellent room-temperature cycle performance by high-quality Li7La3Zr2O12-based electrolyte. **2023**, 935, 168112	0
488	Multi-objective optimization of a hybrid system based on combined heat and compressed air energy storage and electrical boiler for wind power penetration and heat-power decoupling purposes. **2023**, 58, 106353	1
487	Electrical lithium-ion battery models based on recurrent neural networks: A holistic approach. **2023**, 58, 106461	0
486	Progress and challenges of Prussian blue analogs for potassium-ion batteries: in the perspective of redox-active transition metals.	0
485	Large-scale direct regeneration of LiFePO4@C based on spray drying.	0
484	Defect-rich graphene skin modified carbon felt as a highly enhanced electrode for vanadium redox flow batteries. **2023**, 556, 232443	0
483	Cross-linking chemistry enables robust conductive polymeric network for high-performance silicon microparticle anodes in lithium-ion batteries. **2023**, 556, 232495	0
482	State-of-health estimation by virtual experiments using recurrent decoder–encoder based lithium-ion digital battery twins trained on unstructured battery data. **2023**, 58, 106335	0
481	Construction of porous Si/Ag@C anode for lithium-ion battery by recycling volatile deposition waste derived from refining silicon. **2023**, 156, 22-32	0
480	Facial construction of high rate Na3V2(PO4)2F3/C microspheres with fluorocarbon layer by deep-eutectic solvent synthesis. **2023**, 440, 141718	0
479	Study of the cross-transportation of V(II)/V(III) in vanadium flow batteries based on online monitoring of nonlinear absorption spectra. **2023**, 556, 232442	0
478	Capacity and Internal Resistance of lithium-ion batteries: Full degradation curve prediction from Voltage response at constant Current at discharge. **2023**, 556, 232477	1
477	Robust model-predictive thermal control of lithium-ion batteries under drive cycle uncertainty. **2023**, 557, 232496	0
476	Next generation 2D materials for anodes in battery applications. **2023**, 556, 232256	0
475	Air-stabilized pore structure engineering of antimony-based anode by electrospinning for potassium ion batteries. **2023**, 633, 352-361	1

474	Electrochemical lithium storage performance at high voltage and temperature of LiNi0.6Co0.2Mn0.2O2 cathode for Lithium-ion batteries by facile Mn3(PO4)2 dry coating. **2023**, 613, 156018	0
473	Nitrogen-doped meso-macroporous carbon from waste asphalt as high-performance anode materials for alkali-ion batteries. **2023**, 35, e00535	0
472	Improving the gravity-rotation-excited vibration energy harvesting in offset configurations. **2023**, 243, 108033	0
471	Devisable three-dimensional Cu2Se nanoarrays boosts high rate Na-Ion storage. **2023**, 612, 155725	0
470	An ultrastrong 3D architecture interface with fast and smooth Li-ion deposition for high-capacity Li metal anode. **2023**, 938, 168494	0
469	Encapsulation of KTi2(PO4)3 nanoparticles in porous N-doped carbon nanofibers as a free-standing electrode for superior Na/K-storage performance. **2023**, 937, 168358	0
468	Design of metal-organic frameworks for improving pseudo-solid-state magnesium-ion electrolytes: Open metal sites, isoreticular expansion, and framework topology. **2023**, 144, 15-27	1
467	Low-cost iron-based electrocatalysts for high-performance Li□O2 batteries. **2023**, 17, 100351	0
466	A prospect-theoretic game approach to demand response market participation through energy sharing in energy storage systems under uncertainty. **2023**, 9, 1093-1103	0
465	Surfactant induced catastrophic collapse of carbon black suspensions used in flow battery application. **2023**, 633, 712-722	0
464	Overview of machine learning applications to battery thermal management systems in electric vehicles. **2022**,	0
463	Empirical decay relationship between ionic conductivity and porosity of garnet type inorganic solid-state electrolytes. **2022**, 32, 3362-3373	0
462	Transient Modeling of a Vanadium Redox Flow Battery and Real-Time Monitoring of Its Capacity and State of Charge. **2022**, 61, 17557-17571	0
461	Enhanced Electrochemical Performance in Ge/GeO 2 Nanotubes Anode Derived from C/Ge Nanofibers. 2201177	0
460	Mg-Doped Na 4 Fe 3 (PO 4) 2 (P 2 O 7)/C Composite with Enhanced Intercalation Pseudocapacitance for Ultra-Stable and High-Rate Sodium-Ion Storage. 2211257	0
459	Preparation of N-doped MoP-based core-shell nanorods and their electrocatalytic performance in hydrogen evolution. **2022**, 50, 1437-1448	0
458	Metal Selenides Anode Materials for Sodium Ion Batteries: Synthesis, Modification, and Application. 2206194	1
457	A review on system and materials for aqueous flexible metal□air batteries.	0

456	Influence of the operating temperature on the ageing and interfaces of double layer polymer electrolyte solid state Li metal batteries.	0
455	Composite Electrolytes Prepared by Improving the Interfacial Compatibility of Organic–Inorganic Electrolytes for Dendrite-Free, Long-Life All-Solid Lithium Metal Batteries. **2022**, 14, 53828-53839	0
454	Coupling Low-Tortuosity Carbon Matrix with Single-Atom Chemistry Enables Dendrite-Free Potassium-Metal Anode. 2203277	1
453	Atomic Layer Deposition for Electrochemical Energy: from Design to Industrialization. **2022**, 5,	0
452	Effect of homojunction structure in boosting sodium-ion storage: the case of MoO2. **2022**,	0
451	Multifunctional Quasi-Solid-State Zinc–Sulfur Battery.	0
450	A quintuple phase shift modulation scheme in multilevel dual active bridge converter for battery energy storage system.	0
449	Uncovering the Fundamental Role of Interlayer Water in Charge Storage for Bilayered V 2 O 5 · n H 2 O Xerogel Cathode Materials. 2202515	3
448	Ultrathin Solid Polymer Electrolyte Design for High-Performance Li Metal Batteries: A Perspective of Synthetic Chemistry. 2205233	2
447	Recent advances in modification strategies of silicon-based lithium-ion batteries.	1
446	In Situ Constructing a Film-Coated 3D Porous Zn Anode by Iodine Etching Strategy Toward Horizontally Arranged Dendrite-Free Zn Deposition. 2208288	0
445	A Review of Lithium-Ion Battery Failure Hazards: Test Standards, Accident Analysis, and Safety Suggestions. **2022**, 8, 248	3
444	Lyotropic Liquid Crystals Inducing Liquid–Fluid Lamellar Conducting Highways as Superior Electrolytes toward Electrochemical Energy Devices. **2022**, 61, 17930-17936	0
443	Inherent Heteroatom-enriched Amorphous Carbon as High-performance Electrode for Sodium-ion Battery and Sodium-ion Ultracapacitor. **2022**, 36, 15221-15233	0
442	Ion-Conducting Robust Cross-Linked Organic/Inorganic Polymer Composite as Effective Binder for Electrode of Electrochemical Capacitor. **2022**, 14, 5174	0
441	Synergistically Tailoring the Electronic Structure and Ion Diffusion of Atomically Thin Co(OH) 2 Nanosheets Enable Fast Pseudocapacitive Sodium Ion Storage. 2211711	1
440	The Flow Battery for Stationary Large-Scale Energy Storage. **2022**,	0
439	The Electronic and Structural Properties of NaxSy Nanoclusters. **2022**, 17, 429-437	0

438	Electrochemical energy storage and conversion: An overview.	0
437	Recovery of zinc from scrap steel using zinc–bromine battery technology.	0
436	Incorporating TiO2 nanoparticles into the multichannels of electrospun carbon fibers to increase the adsorption of polysulfides in room temperature sodium-sulfur batteries. **2022**, 37, 1116-1122	0
435	Recent Advances in Electrolytes for Potassium-Ion Batteries. 2211290	0
434	Smart Deep Eutectic Electrolyte Enabling Thermally Induced Shutdown Toward High-Safety Lithium Metal Batteries. 2202529	0
433	Restraining Shuttle Effect in Rechargeable Batteries by Multifunctional Zeolite Coated Separator. 2211774	0
432	A social life cycle assessment of vanadium redox flow and lithium-ion batteries for energy storage.	0
431	Optimal Planning of Battery Energy Storage Systems by Considering Battery Degradation due to Ambient Temperature: A Review, Challenges, and New Perspective. **2022**, 8, 290	1
430	Optimizing Interfacial Wetting by Ionic Liquid for High Performance Solid-State Lithium Metal Batteries Operated at Ambient Temperature. **2022**, 141043	0
429	Zeolite-Based Electrolytes: A Promising Choice for Solid-State Batteries. **2022**, 1,	0
428	Two-electron storage electrolytes for aqueous organic redox flow batteries. **2022**, 3, 101195	0
427	Insights into Sodium-Ion Batteries Through Plateau and Slope Regions in Cyclic Voltammetry by Tailoring Bacterial Cellulose Precursors. **2022**, 141770	0
426	Phenoxazine Polymer-based p-type Positive Electrode for Aluminum-ion Batteries with Ultra-long Cycle Life.	0
425	Design of Inorganic-Organic Hydrophobic on Zn Anode Realizes High Reversible and Dendrite-Free Zn Ion Batteries.	0
424	A robust solid electrolyte interphase enabled by solvate ionic liquid for high-performance sulfide-based all-solid-state lithium metal batteries.	0
423	Interlayer Modulation of Layered Transition Metal Compounds for Energy Storage. **2022**, 14, 54369-54388	1
422	Hybrid solid electrolyte interphases formed in conventional carbonate electrolyte enable high-voltage and ultra-stable magnesium metal batteries. **2022**,	0
421	Advanced Nb2O5 Anode towards Fast Pseudocapacitive Sodium Storage. **2022**, 12, 1873	0

420	Enhancing Total Transfer Capability via Optimal Location of Energy Storage Systems Using a Hybrid Improved Min-Cut Algorithm and Genetic Algorithm. **2023**, 512-524	0
419	Chemically Modified Carbon Nanotubes in Energy Production and Storage. **2023**, 107-128	0
418	Self-Healing Polymers and Composites for Additive Manufacturing: Materials, Properties, and Applications. **2023**, 219-248	1
417	Advanced Nanostructured Materials for Electrocatalysis in Lithium–Sulfur Batteries. **2022**, 12, 4341	0
416	A Novel Cathode Material Synthesis and Thermal Characterization of (1-x-y) LiCo1/3Ti1/3Fe1/3PO4, xLi2MnPO4, yLiFePO4 Composites for Lithium-Ion Batteries (LIBs). **2022**, 27, 8486	0
415	Bio-inspired ion transport/extraction systems toward future energy demand. **2022**, 3, 101167	0
414	Stable Operation of Aqueous Organic Redox Flow Batteries in Air Atmosphere.	0
413	Ionic liquid etched and microwave-assisted delaminated MXene as an excellent electrocatalyst for the hysteretic negative reaction of vanadium redox flow batteries. **2022**, 140789	0
412	High Energy Density Aqueous Flow Battery Utilizing Extremely Stable, Branching-Induced High-Solubility Anthraquinone near Neutral pH. 600-607	0
411	Stable Operation of Aqueous Organic Redox Flow Batteries in Air Atmosphere.	0
410	Electrochemically Induced Defects Promotional High-Performance Binder-Free MnO@CC Cathodes for Flexible Quasi-Solid-State Zinc-Ion Battery. **2022**, 5, 15510-15519	2
409	Nonflammable Dual-Salt Electrolytes for Graphite/LiNi0.8Co0.1Mn0.1O2 Lithium-Ion Batteries: Li+ Solvation Structure and Electrode/Eelectrolyte Interphase. **2022**, 5, 15491-15501	1
408	Synthesis of LiNi 0.6 Co 0.2 Mn 0.2 O 2 Using Supercritical Carbon Dioxide as a Cathode Material for Lithium-Ion Batteries.	1
407	Enhancing sulfur cathode process via a functionalized complex molecule.	0
406	Application of HTS in Rechargeable Battery. **2023**, 55-95	0
405	Aqueous Colloid Flow Batteries Based on Redox-Reversible Polyoxometalate Clusters and Size-Exclusive Membranes. 387-397	1
404	Progress in electrode materials for the industrialization of sodium-ion batteries. **2022**,	1
403	A PEGylated Viologen for Crossover-Free and High-Capacity pH-Neutral Aqueous Organic Redox Flow Batteries.	0

402	Crossover effects of transition metal ions in high-voltage lithium metal batteries.	0
401	Aqueous Rechargeable Zn/ZnO Battery Based on Deposition/Dissolution Chemistry. **2022**, 27, 8664	0
400	Dyeing to Carry Charge: Commercial Phthalocyanine Dyes as Charge Carriers for Redox Flow Battery Applications.	0
399	Building lithium metal batteries under lean electrolyte conditions: challenges and progress. **2022**,	0
398	Sulfur-doped SnO2 nanoparticles encased in porous carbon derived from a metal-organic framework for lithium-ion battery anodes. **2022**, 107091	0
397	Sodium Composite Oxide Cathode Materials:Phase Regulation, Electrochemical Performance and Reaction Mechanism.	0
396	Hierarchical mesoporous binary nickel cobalt selenides nanospheres for enhanced sodium-ion storage. **2022**, 168608	0
395	Controlled Construction and Properties Study of PDMS Coatings for Stabilizing Zinc Metal Anode. 21, 286-297	0
394	Challenges and Developments of High Energy Density Anode Materials in Sulfide-Based Solid-State Batteries. **2022**, 9,	0
393	Surface Bromination of Lithium-Metal Anode for High Cyclic Efficiency. 2203233	0
392	Silicon-metal and silicon-metal oxides composite anodes material for lithium-ion batteries. **2022**, 2399, 012016	0
391	Ultra-Thin Layer Inside Separator Deposited by Spray Pyrolysis Using Methylaluminoxane Solution. 2200203	0
390	Sb-Cu alloy cathode with a novel lithiation mechanism of ternary intermetallic formation: enabling high energy density and superior rate capability of liquid metal battery. **2022**,	0
389	Effects of Position and Quantity of the Cyano Group in Organic Electrode Materials on Electrochemical Performance.	0
388	Insights into Capacity Fading Mechanism and Coating Modification of High-Nickel Cathodes in Lithium-Ion Batteries. **2022**, 14, 55491-55502	0
387	Phenoxazine Polymer-based p-type Positive Electrode for Aluminum-ion Batteries with Ultra-long Cycle Life.	0
386	Cauliflower-like nanostructured ZnV2S4 as a potential cathode material to boost-up high capacity and durability of the aqueous zinc-ion battery. **2022**, 108076	0
385	A Method to Inhibit Disproportionation of Mn3+ for Low-Cost MnFe All-Flow Battery. **2022**, 5, 14646-14651	0

384	Achieving High-Performance Si Nanoparticles-Embedded Carbon Fiber Film Anodes in Lithium-Ion Batteries Through Low Current Activation.	0
383	Development of Novel Pulse Charger for Next Generation Batteries.	1
382	All-in-One Process for Mass Production of Membrane-Type Carbon Aerogel Electrodes for Solid-State Rechargeable Zinc-Air Batteries. **2022**, 12, 1243	0
381	Conductive C3NS Monolayer with Superior Properties for K Ion Batteries. 12055-12060	0
380	Preferential Decomposition of the Major Anion in a Dual-Salt Electrolyte Facilitates the Formation of Organic-Inorganic Composite Solid Electrolyte Interphase.	0
379	Dual Strategies of Metal Preintercalation and In Situ Electrochemical Oxidization Operating on MXene for Enhancement of Ion/Electron Transfer and Zinc-Ion Storage Capacity in Aqueous Zinc-Ion Batteries. 2206860	0
378	Data-driven short circuit resistance estimation in battery safety issues. **2023**,	0
377	Recent Progress on Organic Electrode Materials for Nonaqueous Magnesium Secondary Batteries. **2022**, 80, 1618	0
376	Recent advances in material chemistry for zinc enabled redox flow batteries.	0
375	Ambient-Condition Strategy for Production of Hollow Ga 2 O 3 @ rGO Crystalline Nanostructures toward Efficient Lithium Storage.	0
374	Uniform P2-K0.6CoO2 Microcubes as a High-Energy Cathode Material for Potassium-Ion Batteries.	0
373	Low-Temperature Aqueous Na-Ion Batteries: Strategies and Challenges of Electrolyte Design.	0
372	Solvation regulation to mitigate the decomposition of 2,6-dihydroxyanthraquinone in aqueous organic redox flow batteries.	0
371	Single-Atom Metallophilic Sites for Liquid NaK Alloy Confinement toward Stable Alkali-Metal Anodes. 2206479	0
370	Co nanoparticles anchored on N-doped porous carbon derived from yeast for enhanced electrocatalytic oxygen reduction reaction.	0
369	Asymmetric Vanadium-based Aqueous Flow Batteries. **2023**, 689-708	0
368	Advance of Prussian Blue-Derived Nanohybrids in Energy Storage: Current Status and Perspective. 2206848	0
367	Controlling Cell Components to Design High-Voltage All-Solid-State Li-ion Batteries.	0

366	Unlocking the Capacity of Vanadium Oxide by Atomically Thin Graphene-Analogous V 2 O 5 ·nH 2 O in Aqueous Zinc-Ion Batteries. 2211412	2
365	Nitrogen, Phosphorus Co-Doped Graphite Felt as Highly Efficient Electrode for VO2+/VO2+ Reaction. **2023**, 9, 40	0
364	Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis of Supercapacitors: A Review. **2023**,	0
363	Nitrogen Plasma Enhanced Low-Temperature Atomic Layer Deposition of Magnesium Phosphorus Oxynitride (MgPON) Solid-State Electrolytes.	0
362	High Ion Conductive and Selective Membrane Achieved through Dual Ion Conducting Mechanisms. 2206807	0
361	Reduced graphene oxide-wrapped copper cobalt selenide composites as anode materials for high-performance lithium-ion batteries. **2023**, 130979	0
360	Al and Ta co-doped LLZO as active filler with enhanced Li+ conductivity for PVDF-HFP composite solid-state electrolyte.	0
359	Facilitating ionic conductivity and interfacial stability via oxygen vacancies-enriched TiO2 microrods for composite polymer electrolytes. **2023**, 141329	0
358	A hierarchical integrated 3D carbon electrode derived from gingko leaves via hydrothermal carbonization of H3PO4 for high-performance supercapacitors.	0
357	Synergistically Boosting the Anchoring Effect and Catalytic Activity of MXenes as Bifunctional Electrocatalysts for Sodium-Sulfur Batteries by Single-Atom Catalysts Engineering.	0
356	MOFs-derived advanced heterostructure electrodes for energy storage. **2023**, 214985	1
355	Impact of Catholyte Lewis Acidity at the Molten Salt–NaSICON Interface in Low-Temperature Molten Sodium Batteries.	0
354	High-stable nonflammable electrolyte regulated by coordination-number rule for all-climate and safer lithium-ion batteries. **2023**, 55, 836-846	1
353	Electron Storage Performance of Metal–Organic Frameworks Based on Tetrathiafulvalene–Tetrabenzoate as Cathode Active Materials in Lithium- and Sodium-Ion Batteries.	0
352	Stretchable and self-healable PVA–Nickel–Borax electrodes for supercapacitor applications. **2023**, 34,	0
351	Nitrogen Plasma Enhanced Low-Temperature Atomic Layer Deposition of Magnesium Phosphorus Oxynitride (MgPON) Solid-State Electrolytes.	0
350	Dual-strategy modification on P2-Na 0.67 Ni 0.33 Mn 0.67 O 2 realizes stable high-voltage cathode and high energy density full cell for sodium-ion batteries.	0
349	Gradient H-Bonding Supports Highly Adaptable and Rapidly Self-Healing Composite Binders with High Ionic Conductivity for Silicon Anodes in Lithium-Ion Batteries. 2200822	0

348	Recent advances in manipulating strategy of aqueous electrolytes for Zn anode stabilization. **2023**,	0
347	Elucidating binder-free magnetron sputtered molybdenum-tungsten-disulfide thin films for battery-supercapacitor devices. **2023**, 168929	0
346	Defective Bi2S3 Anchored on CuS/C as an Ultrafast and Long-Life Anode for Sodium-Ion Storage.	0
345	Constructing Advanced Vanadium Oxide Cathode Materials for Aqueous Zinc-ion Batteries Via the Micro-nano Morphology Regulation Strategies. **2023**, 130953	0
344	Hydrogen energy storage system in a Multi-Technology Microgrid:technical features and performance. **2023**,	1
343	A novel 3D bacterial cellulose network as cathodic scaffold and hydrogel electrolyte for zinc-ion batteries. **2023**, 557, 232553	0
342	Polyaniline-modified graphitic carbon nitride as electrode materials for high-performance supercapacitors.	0
341	Recent advances in and perspectives on pseudocapacitive materials for Supercapacitors□A review. **2023**, 557, 232558	0
340	Unlocking the NaCl-AlCl3 phase diagram for low-cost, long-duration Na-Al batteries. **2023**, 56, 108-120	0
339	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
338	Multifunctional lithium compensation agent based on carbon edges catalysis and its application in anode-free lithium batteries. **2023**, 458, 141411	0
337	A self-assembled hybrid electrode for reversible symmetrical solid oxide cells. **2023**, 442, 141872	0
336	Surface-preferred crystal plane induced by supramolecular cyclodextrin additive for highly reversible aqueous zinc metal batteries. **2023**, 457, 141250	0
335	Hierarchical flower-like nanostructures of manganese□obalt□opper nanoneedles for high performance symmetric supercapacitor. **2023**, 296, 127360	0
334	Optimization of heat transfer and temperature control of battery thermal management system based on composite phase change materials. **2023**, 36, 102621	0
333	Monolayer of B3O3 as a promising material in anode of magnesium-ion batteries: A theoretical study. **2023**, 1220, 114008	0
332	Highly-concentrated bis(fluorosulfonyl)imide-based ternary gel polymer electrolytes for high-voltage lithium metal batteries. **2023**, 557, 232554	0
331	Effects of polishing treatments on the interface between garnet solid electrolyte and lithium metal. **2023**, 441, 141789	0

330	Organic redox flow battery: Are organic redox materials suited to aqueous solvents or organic solvents?. **2023**, 558, 232611	0
329	Future potential for lithium-sulfur batteries. **2023**, 558, 232566	0
328	All layered iron vanadate (FeV3O9.2.1H2O) as electrode for symmetric supercapacitor application in aqueous electrolyte. **2023**, 938, 168641	0
327	High energy capacity or high power rating: Which is the more important performance metric for battery energy storage systems at different penetrations of variable renewables?. **2023**, 59, 106560	0
326	Energy efficient lattice and surface chemical regeneration of graphite from failed Li-ion batteries and its use as ultra-long cycling Na-ion battery anodes. **2023**, 190, 106841	0
325	Bottom-up system modeling of battery storage requirements for integrated renewable energy systems. **2023**, 333, 120531	0
324	Characterization of electrochemical double layer capacitor electrode using self-discharge measurements and modeling. **2023**, 334, 120658	0
323	Cerium oxide as cathode material for aqueous zinc-ion battery. **2023**, 391, 116141	0
322	Tri-functionalized Li2B4O7 coated LiNi0.5Co0.2Mn0.3O2 for boosted performance lithium-ion batteries. **2023**, 940, 168767	1
321	Modeling and performance predictions of electrochemical lithium extraction: Impact of leakage current. **2023**, 550, 116395	0
320	Zincophilic polyurethane-based porous film enables dendrite-free zinc anode for reversible aqueous zinc-based batteries. **2023**, 661, 130960	1
319	Enhanced Li storage properties of nickel oxalate microtubes with manganese doping and graphene oxide for lithium-ion batteries. **2023**, 940, 168808	0
318	Graphene supported FeS2 nanoparticles with sandwich structure as a promising anode for High-Rate Potassium-Ion batteries. **2023**, 636, 73-82	0
317	Advanced Zn-air batteries based on efficient and durable perovskite/dual-doped graphene bifunctional oxygen catalysts. **2023**, 939, 168817	0
316	Atomic-level understanding on progressive lithiation of few-layer MoS2 with surface vacancies. **2023**, 939, 168663	0
315	Electrochemical kinetic study and performance evaluation of surface-modified mesoporous sodium carbonophosphates nanostructures for pseudocapacitor applications. **2023**, 939, 168711	0
314	Intercalative pseudocapacitive anhydrous NiC2O4 quantum dot electrode for the fabrication of supercapacitor using aqueous KOH and neutral Na2SO4 electrolyte. **2023**, 60, 106549	0
313	High rate lithium slurry flow batteries enabled by an ionic exchange Nafion composite membrane incorporated with LLZTO fillers. **2023**, 108, 108174	0

312	Using Artificial Bee Colony and Dragonfly Algorithms to Improve the Accuracy of Parameter Estimation of Li- FePO4 Battery Cell. **2022**,	0
311	A Lumped Analytical Model for Thermal Management of Sodium Nickel Chloride Battery Module. **2022**,	0
310	Preparation of perovskite-type La0.8Sr0.2Mn1-xCoxO3 by template method and catalytic performance in aluminum-air battery. **2022**, 111200	0
309	Comprehensive Review of Power Electronic Converters in Electric Vehicle Applications. **2023**, 5, 22-80	0
308	Flexible Sn-Based Composite Anode with High Cycle Stability for Micro Lithium-Ion Batteries. **2022**,	0
307	A carbon mixed selenium sulfide separator coating for lithium-sulfur battery life enhancement.	0
306	Mo-Pre-Intercalated MnO2 Cathode with Highly Stable Layered Structure and Expanded Interlayer Spacing for Aqueous Zn-Ion Batteries. **2023**, 15, 859-869	1
305	Sacrificial Catalyst of Carbothermal-Shock-Synthesized 1T-MoS2 Layers for Ultralong-Lifespan Seawater Battery. **2023**, 23, 344-352	0
304	Novel synthesis of nickel oxide-copper hexacyanoferrate binary hybrid nanocomposite for high-performance supercapacitor application.	0
303	Direct Correlation between Short-Range Vibrational Spectral Diffusion and Localized Ion-Cage Dynamics of Water-in-Salt Electrolytes. **2023**, 127, 236-248	0
302	Interfacial Anchored Sesame Ball-like Ag/C To Guide Lithium Even Plating and Stripping Behavior. **2023**, 15, 1934-1943	0
301	Nb2C MXenes with surface chalcogenation and halogenation as high capacity electrode materials for lithium-ion batteries.	0
300	Cathode materials for halide-based aqueous redox flow batteries: recent progress and future perspectives.	1
299	A Covalent Organic Framework as a Long-life and High-Rate Anode Suitable for Both Aqueous Acidic and Alkaline Batteries.	0
298	Designing Highly Conductive Sodium-Based Metal Hydride Nanocomposites: Interplay between Hydride and Oxide Properties. 2209122	0
297	A facile approach to efficiently load and isolate CoN active sites for the preparation of a high-performance Co-N-C oxygen reduction catalyst.	0
296	Formation of oxygen vacancy clusters in the Li-rich Mn-based cathode materials of lithium-ion batteries:first-principles calculations. **2023**, 0	0
295	Polypropylene carbonate-based electrolytes as model for a different approach towards improved ion transport properties for novel electrolytes. **2023**, 25, 4810-4823	0

294	Enhancing Performance of LiFePO4 Battery by Using a Novel Gel Composite Polymer Electrolyte. **2023**, 9, 51	0
293	Surfactant-Mediated Synthesis of Novel Mesoporous Hollow CuO Nanotubes as an Anode Material for Lithium-Ion Battery Application. **2023**, 8,	0
292	MOFs Containing Solid-State Electrolytes for Batteries. 2206887	0
291	How About Vanadium-Based Compounds as Cathode Materials for Aqueous Zinc Ion Batteries?. 2206907	0
290	Influencing Factors on Li-ion Conductivity and Interfacial Stability of Solid Polymer Electrolytes, Exampled by Polycarbonates, Polyoxalates and Polymalonates.	0
289	Engineering green and sustainable solvents for scalable wet synthesis of sulfide electrolytes in high-energy-density all-solid-state batteries.	0
288	Urea-Based Deep Eutectic Solvent with Magnesium/Lithium Dual Ions as an Aqueous Electrolyte for High-Performance Battery-Supercapacitor Hybrid Devices. **2023**, 9, 69	1
287	High ionic conductivity and toughness hydrogel electrolyte for high-performance flexible solid-state zinc-ion hybrid supercapacitors enabled by cellulose-bentonite coordination interactions.	0
286	Ambient temperature liquid salt electrolytes.	0
285	A Highly Ion-Conductive Solid Polymer Electrolyte with Good Thermal Stability and Non-flammability for All-Solid-State Li Metal Batteries.	0
284	Cobalt-decorated carbon nanotube bottlebrushes for boosting polysulfide conversion in lithium-sulfur batteries.	0
283	P3 type layered oxide frameworks: An appealing family of insertion materials for K-ion batteries. **2023**, 101216	0
282	Pendant Length-Dependent Electrochemical Performances for Conjugated Organic Polymers as Solid-State Polymer Electrolytes in Lithium Metal Batteries. **2023**, 15, 5283-5292	0
281	Ionic Conduction in Polymer-Based Solid Electrolytes. 2201718	1
280	Beyond lithium: Solid-state sodium-ion batteries and their potential applications. **2023**, 223-262	0
279	Molybdenum Vanadium Oxides as Intercalation Hosts for Chloroaluminate Anions. **2023**, 9, 92	0
278	High entropy liquid electrolytes for lithium batteries. **2023**, 14,	1
277	Organics-Free Aqueous Hybrid Electrolyte for High-Performance Zinc Ion Hybrid Capacitors Operating at Low Temperature.	0

276	Uniform Formation of a Characteristic Nanocomposite Structure of Biogenous Iron Oxide for High Rate Performance as the Anode of Lithium-Ion Batteries. **2023**, 127, 2223-2230	0
275	Clarification of the Effects of Oxygen Containing Functional Groups on the Pore Filling Behavior of Discharge Deposits in Lithium–Air Battery Cathodes Using Surface-Modified Carbon Gels. **2023**, 127, 2246-2257	0
274	In Situ Transition Layer Design Based on Ti Additive Enabling High-Performance Liquid Metal Batteries. **2023**, 15, 5265-5272	0
273	Insight into the Anchoring Effect of Two-Dimensional TiX 2 (X = S, Se) Materials for Sodium–Sulfur Batteries: A First-Principles Study. 2200714	0
272	Two-step synthesis of a-NiCu(OH)2CO3/Na3NiCuCO3PO4: a battery-type electrode for pseudocapacitor applications.	0
271	Oxygenated copper vanadium selenide composite nanostructures as a cathode material for zinc-ion batteries with high stability up to 10 000 cycles.	0
270	Application of 2D MXene in Organic Electrode Materials for Rechargeable Batteries: Recent Progress and Perspectives. 2210184	0
269	Flower-Like NiS 2 /WS 2 Heterojunction as Polysulfide/sulfide Bidirectional Catalytic Layer for High-Performance Lithium–Sulfur Batteries. 2206926	0
268	Facile and Cheap Carbonized Cotton Cloth Interlayer Endows Lithium-Sulfur Batteries with High Performance in All Climates. **2023**, 37, 2431-2440	0
267	Synthesis of Metal Organic Frameworks (MOFs) and Their Derived Materials for Energy Storage Applications. **2023**, 5, 140-166	0
266	Entropy-driven Liquid Electrolytes for Lithium Batteries. 2210677	1
265	Recent Progress in Aqueous Alkali-metal-ion batteries at low temperatures. **2023**, 0	0
264	From surface loading to precise confinement of polyoxometalates for electrochemical energy storage. **2023**, 108194	0
263	Phytic acid-doped and ammonium hydroxide de-doped polyaniline cathodes for rechargeable aluminum ion battery. **2023**, 392, 116166	0
262	Ni-MOF derived NiO/Ni/r-GO nanocomposite as a novel electrode material for high-performance asymmetric supercapacitor. **2023**, 61, 106769	0
261	Zn and N co-doped three-dimensional honeycomb-like carbon featured with interconnected nano-pools for dendrite-free zinc anode. **2023**, 638, 629-639	0
260	Core-shell NiS2@C encased by thin carbon layer as high-rate and durable electrode for aqueous rechargeable battery. **2023**, 638, 274-280	0
259	Reaching the initial coulombic efficiency and structural stability limit of P2/O3 biphasic layered cathode for sodium-ion batteries. **2023**, 638, 758-767	0

258	Defect engineering on VO2(B) nanoleaves/graphene oxide for the high performance of cathodes of zinc-ion batteries with a wide temperature range. **2023**, 559, 232688	2
257	Tuning a small electron polaron in FePO4 by P-site or O-site doping based on DFT+U and KMC simulation. **2023**, 25, 8734-8742	0
256	A self-sacrificing strategy to fabricate a fluorine-modified integrated silicon/carbon anode for high-performance lithium-ion batteries. **2023**, 47, 6191-6200	0
255	Advances and Strategies of Electrolyte Regulation in Zn-ion Batteries.	0
254	S- and Cl-functionalized Nb2C MXenes as novel anode materials for sodium-ion batteries: a first-principles study. **2023**, 47, 6412-6419	0
253	A first-principle study of bilayer black phosphorene as a potential anode material in sodium-ion batteries.	0
252	Stimuli-responsive structure–property switchable polymer materials.	0
251	Recent advances in modified commercial separators for lithium–sulfur batteries. **2023**, 11, 7833-7866	0
250	Electrode Materials for High Energy Density Li-Ion. **2023**, 215-243	0
249	A Brief Review of Gel Polymer Electrolytes Using In Situ Polymerization for Lithium-ion Polymer Batteries. **2023**, 15, 803	0
248	Sulfonated poly(ether ether ketone) membranes for vanadium redox flow battery enabled by the incorporation of ionic liquid-covalent organic framework complex. **2023**, 140,	0
247	Improving the Efficiency of Renewable Energy Assets by Optimizing the Matching of Supply and Demand Using a Smart Battery Scheduling Algorithm. **2023**, 16, 2425	0
246	Review on Molecularly Controlled Design of Electrodes for Metal–Air Batteries: Fundamental Concepts and Future Directions.	0
245	Recent Advancement and Structural Engineering in Transition Metal Dichalcogenides for Alkali Metal Ions Batteries. **2023**, 16, 2559	0
244	Hierarchical TiO2 nanoflowers percolated with carbon nanotubes for long-life lithium storage. **2023**, 934, 117305	0
243	Latest progresses and the application of various electrolytes in high-performance solid-state lithium-sulfur batteries. **2023**,	0
242	Enhanced zinc ion storage performance of V2O5·nH2O prepared by hydrothermal method with the assistance of sodium dodecylbenzene sulfonate. **2023**, 131459	0
241	Operando Benchtop NMR Reveals Reaction Intermediates and Crossover in Redox Flow Batteries. **2023**, 107448	0

240	Unconstrained Machine Learning Screening for New Li-Ion Cathode Materials Enhanced by Class Balancing.	0
239	Hydrogen-bond-rich composite membrane with improved conductivity and selectivity for flow battery. **2023**, 563, 232815	0
238	A process using a thermal reduction for producing the battery grade lithium hydroxide from wasted black powder generated by cathode active materials manufacturing. **2023**, 448, 130952	0
237	Geometrical design of top-to-bottom magnesiophilicity-gradient host for reversible Mg-metal batteries. **2023**, 59, 102762	0
236	Novel battery thermal management via scalable dew-point evaporative cooling. **2023**, 283, 116948	0
235	Synergistic-effect of diluent to reinforce anion-solvation-derived interfacial chemistry for 4.5□Vclass Li||LiCoO2 batteries. **2023**, 109, 108323	0
234	THESEUS: A techno-economic design, integration and downselection framework for energy storage. **2023**, 284, 116976	0
233	Enhanced electrochemical properties of NASICON-type Na3Zr2Si2PO12 solid electrolytes with Tb3+-ions-assisted sintering. **2023**, 393, 116185	0
232	Metal-organic frameworks based single-atom catalysts for advanced fuel cells and rechargeable batteries. **2023**, 80, 501-534	0
231	Highly conductive polyacrylonitrile-based hybrid aqueous/ionic liquid solid polymer electrolytes with tunable passivation for Li-ion batteries. **2023**, 453, 142349	0
230	MXene/carbon composites for electrochemical energy storage and conversion. **2023**, 22, 100350	0
229	Coordination chemistry in modulating electronic structures of perovskite-type oxide nanocrystals for oxygen evolution catalysis. **2023**, 485, 215109	0
228	Regulation of Si nanodomain size and its effect on electrochemical performance in prelithiated SiO anode. **2023**, 570, 233021	0
227	Enhanced Na+ diffusion in Na3V2(PO4)2F2O cathodes via Zr4+ doping for high-rate and long-cycling sodium batteries. **2023**, 945, 169314	0
226	Suppressing storage-induced degradation of Li7La3Zr2O12 via encapsulation with hydrophobicity-tailored polymer nanolayer. **2023**, 453, 142358	0
225	Multifunctional separators for lithium secondary batteries via in-situ surface modification of hydrophobic separator using aqueous binders. **2023**, 38, 102828	0
224	Recent advances and future perspectives of rechargeable chloride-based batteries. **2023**, 110, 108364	0
223	Recent advances and key opportunities on in-plane micro-supercapacitors: From functional microdevices to smart integrated microsystems. **2023**, 81, 410-431	0

222	Boosting ion diffusion at Ni2P@3D nanostructure carbon network interface for superior and durable sodium-ion hybrid capacitor. **2023**, 453, 142363	0
221	Tailoring the growth of iron hexacyanoferrates for high-performance cathode of sodium-ion batteries. **2023**, 946, 169284	0
220	Multimodal characterization of carbon electrodes' thermal activation for vanadium redox flow batteries. **2023**, 569, 233010	0
219	Structural, electronic, mechanical and thermodynamic properties of lithium-rich layered oxides cathode materials for lithium-ion battery: Computational study. **2023**, 35, 105738	0
218	Zn-doped nickel iron (oxy)hydroxide nanocubes passivated by polyanions with high catalytic activity and corrosion resistance for seawater oxidation. **2023**, 81, 82-92	0
217	T-BN nanosheets as High-capacity anode for Li- and Na-Ion Batteries: An ab initio study. **2023**, 1224, 114105	0
216	Tailored P2/O3 phase-dependent electrochemical behavior of Mn-based cathode for sodium-ion batteries. **2023**, 64, 107242	0
215	An asymmetric supercapacitor with ultra-high energy density and long cycle life based on La(OH)3 nano-spindles and nano-rods anchored on reduced graphene oxide. **2023**, 945, 169345	0
214	Enhancement of recovered graphite's electrochemical performance during LIB recycling to promote circular sustainable development. **2023**, 36, e00613	0
213	A novel sorting method for liquid metal batteries based on deep learning and sequential features. **2023**, 64, 107093	0
212	Integrated design of multifunctional all-in-one polymer electrolyte membranes with 3D crosslinking networks toward high-performance lithium metal batteries. **2023**, 677, 121643	0
211	Highly conductive S-doped FeSe2-xSx microsphere with high tap density for practical sodium storage. **2023**, 2, 100120	0
210	LiFePO4/rGO composite prepared from the leaching liquor of jarosite residue as a cathode material for lithium-ion batteries. **2023**, 952, 170105	0
209	Building a high-performance organic cathode material containing electron-withdrawing groups for lithium-ion batteries. **2023**, 64, 107241	0
208	Effect of precursor selection on the structure and Li-storage properties of wood-based hard carbon thick electrodes. **2023**, 198, 116664	0
207	Non-aqueous organic redox active materials for a bicontinuous microemulsion-based redox flow battery. **2023**, 34, 101286	0
206	Recyclable 3D-Printed Aqueous Lithium-Ion Battery.	0
205	Binders for Si based electrodes: current status, modification strategies and perspective. **2023**, 102776	0

204	Effects of Ion Fraction in an Inorganic Ionic Liquid Electrolyte on Performance of Intermediate-Temperature Operating Sodium-Sulfur Batteries. **2023**, 91, 047003-047003	0
203	Advanced hybrid polybenzimidazole membrane enabled by a linker of metal-organic framework for high-performance vanadium flow battery. **2023**, 461, 142032	0
202	A 10-years-developmental study on conducting polymers composites for supercapacitors electrodes: A review for extensive data interpretation. **2023**, 122, 27-45	0
201	Structure defects engineering in Prussian blue cathode materials for high-performance sodium-ion batteries. **2023**, 950, 169903	0
200	A design of MnO-CNT@C3N4 cathodes for high-performance aqueous zinc-ion batteries. **2023**, 642, 340-350	0
199	Model-free reconstruction of capacity degradation trajectory of lithium-ion batteries using early cycle data. **2023**, 17, 100243	0
198	Enhanced rate capability of S@Co3O4 microsphere wrapped by rGO for cathodes of lithium-sulfur batteries. **2023**, 336, 133902	0
197	Parametric investigation of ferri/ferrocyanide redox flow for performance optimization of redox flow desalination. **2023**, 550, 116406	0
196	Analysis and design of battery thermal management under extreme fast charging and discharging. **2023**, 60, 106501	0
195	Toward High Energy Density FeF x (x =2 and 3) Cathodes for Lithium-Ion Batteries. **2023**, 6,	0
194	Ultrasmall CoS nanoparticles embedded in heteroatom-doped carbon for sodium-ion batteries and mechanism explorations via synchrotron X-ray techniques. **2023**, 79, 373-381	1
193	Synthesis of expanded graphite-based materials for application in lithium-based batteries. **2023**, 60, 106678	0
192	Influencing Factors on Li-ion Conductivity and Interfacial Stability of Solid Polymer Electrolytes, Exampled by Polycarbonates, Polyoxalates and Polymalonates. **2023**, 62,	0
191	Recent advance on NASICON electrolyte in solid-state sodium metal batteries. **2023**, 56, 582-599	1
190	Mechanical Failure Modes of Prismatic Lithium-ion Battery Separator.	0
189	High-efficient prediction of state of health for lithium-ion battery based on AC impedance feature tuned with Gaussian process regression. **2023**, 561, 232737	0
188	Carbon Nano-Onion-Encapsulated Ni Nanoparticles for High-Performance Lithium-Ion Capacitors. **2023**, 9, 102	0
187	An artificial protection layer for Zn electrode enabling uniform Zn deposition and stable cycling of Zn-MnO2 full cells under limited anode condition. **2023**, 460, 141678	0

186	Bifunctional electrolyte regulation towards low-temperature and high-stability Zn-ion hybrid capacitor. **2023**, 79, 495-504	0
185	A Review of Bifunctional Catalysts for Zinc-Air Batteries. **2023**, 3, 13-47	0
184	A hexaazatriphenylene-based polymer as high performance anode for Li-/Na-/K-ion batteries. **2023**, 460, 141703	0
183	Controllable Preparation to Boost High Performance of Nanotubular SiO2@C as Anode Materials for Lithium-Ion Batteries. **2023**, 9, 107	0
182	Achieving High-Power and Dendrite-Free Lithium Metal Anodes via Interfacial Ion-Transport-Rectifying Pump. **2023**, 13, 2203912	0
181	Design of an efficient energy management system for renewables based wireless electric vehicle charging station.	0
180	Recent Progress in Solid Electrolytes for All-Solid-State Metal(Li/Na)–Sulfur Batteries. **2023**, 9, 110	0
179	Silicon-based anode materials for lithium batteries: recent progress, new trends, and future perspectives. 1-33	0
178	Nanodesigns for Na3V2(PO4)3-based cathode in sodium-ion batteries: a topical review. **2023**, 34, 202003	0
177	A Voltage Doubler Boost Converter Circuit for Piezoelectric Energy Harvesting Systems. **2023**, 16, 1631	0
176	Nitrogen and sulfur-codoped porous carbon derived from zein/poly(ionic liquid) complexes as electrode material for high-performance supercapacitor. **2023**, 25,	0
175	MOF-related electrocatalysts for sulfur reduction/evolution reactions: Composition modulation, structure design, and mechanism research. **2023**, 100107	0
174	Recent progress of Mn-based NASICON-type sodium ion cathodes. **2023**, 57, 69-80	1
173	Achieving High Performance Electrode for Energy Storage with Advanced Prussian Blue-Drived Nanocomposites—A Review. **2023**, 16, 1430	0
172	Spontaneous In Situ Formation of Lithium Metal Nitride in the Interface of Garnet-Type Solid-State Electrolyte by Tuning of Molten Lithium.	0
171	Evaluation of Cathode Electrodes in Lithium-Ion Battery: Pitfalls and the Befitting Counter Electrode. 2208018	0
170	In-situ partial oxidation of TiVCTx derived TiO2 and V2O5 nanocrystals functionalized TiVCTx MXene as anode for lithium-ion batteries. **2023**, 444, 142022	0
169	Imaging solid–electrolyte interphase dynamics using operando reflection interference microscopy.	0

168	Preparation of multistage microporous and mesoporous nitrogen-doped carbon nanospheres and study on electrocatalytic oxygen reduction. **2023**, 48, 42-48	0
167	Carbon Nanotube/Hygroscopic Salt Nanocomposites with Dual-Functionality of Effective Cooling and Fire Resistance for Safe and Ultrahigh-Rate Operation of Practical Lithium-Ion Batteries. 2213846	0
166	Microelectrode-based probing of charge propagation and redox transitions in concentrated polyoxometallate electrolyte of potential utility for redox flow battery. **2023**, 932, 117263	0
165	Research on the Performance of Cobalt Oxide Decorated Graphite Felt as Electrode of Iron-Chromium Flow Battery. **2023**, 10,	0
164	Battery-Type-Behavior-Retention Ni(OH)2□GO Composite for an Ultrahigh-Specific-Capacity Asymmetric Electrochemical Capacitor Electrode. **2023**, 8, 6289-6301	0
163	Organic Hydronium-Ion Battery with Ultralong Life. **2023**, 8, 1390-1396	0
162	Natural Molybdenite as a High-Capacity Anode Material for Fast-Charging Lithium-Ion Capacitors. 2201458	0
161	A review of existing and emerging binders for silicon anodic Li-ion batteries.	0
160	Construction of Lithium Metal Anode with High Lithium Utilization and its Application in Lithium-Sulfur Batteries. **2023**, 13, 7-28	0
159	Nitrogen as An Anionic Center/Dopant for Next-Generation High-Performance Lithium/Sodium-Ion Battery Electrodes: Key Scientific Issues, Challenges and Perspectives. 2214786	0
158	Charge Storage Mechanism of LixWO3 Hexagonal Tungsten Bronze in Aqueous Electrolytes. **2023**, 9, 136	0
157	Progress and perspectives of liquid metal batteries. **2023**, 57, 205-227	0
156	Generation Capacity Expansion Considering Hydrogen Power Plants and Energy Storage Systems. **2023**, 11, 15525-15539	0
155	Unlocking the intrinsic mechanisms of A-site K/Na doped perovskite fluorides pseudocapacitive cathode materials for enhanced aqueous zinc-based batteries. **2023**, 57, 334-345	0
154	Research Progress of Stable Lithium Metal Anodes. **2023**, 13, 11-26	0
153	Towards cobalt-containing polyoxometalate-based electrolytes for redox flow batteries operating under mild conditions. **2023**, 445, 142058	0
152	Thermal batteries based on inverse barocaloric effects. **2023**, 9,	0
151	The Role of Pulse Duty Cycle and Frequency on Dendritic Compression. **2023**, 127, 4407-4415	0

150	Thermal and electrical insulation properties of BN -filled polymer-based elastomer composites. **2023**, 140,	0
149	Data-driven designs and multi-scale simulations of enhanced ion transport in low-temperature operation for lithium-ion batteries. **2023**, 40, 539-547	0
148	A Mechanistic Overview of the Current Status and Future Challenges of Aluminum Anode and Electrolyte in Aluminum-Air Batteries.	0
147	Molecular dynamics simulations of the Li-ion diffusion in the amorphous solid electrolyte interphase. **2023**, 108242	0
146	A Hydrogen Iron Flow Battery with High Current Density and Long Cyclability Enabled Through Circular Water Management.	0
145	Unveiling a high capacity multi-redox (Nb5+/Nb4+/Nb3+) NASICON-Nb2(PO4)3 anode for Li- and Na-ion batteries. **2023**, 11, 8173-8183	0
144	Prevention of Carbon Corrosion by TiC Formation on Ti Current Collector in Seawater Batteries. 2213853	0
143	Chrysanthemum-like Polyaniline-Anchored PANI0.22□V2O5□0.88H2O-Hybridized Cathode for High-Stable Aqueous Zinc-Ion Batteries. **2023**, 6, 3102-3112	0
142	Charge fluctuation drives anion rotation to enhance the conductivity of Na11M2PS12 (M = Si, Ge, Sn) superionic conductors. **2023**, 25, 7634-7641	0
141	Algebraic Graph-Based Machine Learning Model for Li-Cluster Prediction. **2023**, 127, 2051-2059	0
140	Boosting the output of hydrocapacitors by structure modification. **2023**, 29, 101405	0
139	Pyrolyzed Organic Pigment as Efficient Surface-Dominated Alkali-Ion Storage Anodes. **2023**, 15, 11652-11661	0
138	Facile synthesis of SmSe supported on multiwalled carbon nanotubes for supercapacitor applications.	0
137	A jigsaw-structured artificial solid electrolyte interphase for high-voltage lithium metal batteries. **2023**, 4,	0
136	Insights into the deviation from piecewise linearity in transition metal complexes from supervised machine learning models. **2023**, 25, 8103-8116	0
135	The impact of in-situ hydrogen evolution on the flow resistance of electrolyte flowing through the carbon felt electrode in a redox flow battery. **2023**, 564, 232837	0
134	Hybrid polymer gels for energy applications.	0
133	Flexible Ammonium-Ion Pouch Cells Based on a Tunneled Manganese Dioxide Cathode. **2023**, 15, 12434-12442	0

132	Solid-state lithium-ion batteries for grid energy storage: opportunities and challenges.	1
131	Evaluating the intensity, duration and frequency of flexible energy resources needed in a zero-emission, hydropower reliant power system. **2022**, 1,	0
130	Anomalous doping effects on stabilizing unusual phases of lithium fluoride for enhanced rechargeable battery interfaces. **2023**, 248, 118813	0
129	Interfacial Issues and Modification of Solid Electrolyte Interphase for Li Metal Anode in Liquid and Solid Electrolytes. **2023**, 13,	0
128	Insight into the decay mechanism of non-ultra-thin silicon film anode for lithium-ion batteries. **2023** , 448, 142112	0
127	A state-of-the art review on advancing battery thermal management systems for fast-charging. **2023**, 226, 120303	0
126	Reconstructing the Anode Interface and Solvation Shell for Reversible Zinc Anodes. **2023**, 15, 11940-11948	0
125	Recent Progress on Honeycomb Layered Oxides as a Durable Cathode Material for Sodium-Ion Batteries. 2201555	0
124	Biomass-derived carbon anodes for sodium-ion batteries. **2023**, 38, 40-66	0
123	Enhanced electrochemical performance of silicon anode materials with titanium hydride treatment. **2023**, 933, 117292	0
122	A Li3PO4 coating strategy to enhance the Li-ion transport properties of Li2ZnTi3O8 anode material for Lithium-ion Battery. **2023**, 447, 142151	1
121	A polysulfide-functionalized separator enables robust long-cycle operation of lithium-metal batteries.	0
120	Recent Advances in Two-Dimensional MXene for Supercapacitor Applications: Progress, Challenges, and Perspectives. **2023**, 13, 919	0
119	Improved Strategies for Separators in Zinc-Ion Batteries. **2023**, 16,	0
118	Single-ion conducting polymer as lithium salt additive in polymerized ionic liquid block copolymer electrolyte. **2023**, 140,	0
117	Integrating molybdenum into zinc vanadate enables Zn3V2MoO8 as a high-capacity Zn-supplied cathode for Zn-metal free aqueous batteries. **2023**, 15, 6722-6731	0
116	Bivalent Cobalt as Efficient Catalyst Intercalation Layer Improves Polysulfide Conversion in Lithium-Sulfur Batteries.	0
115	Enabling Multi-electron Reactions in NASICON Positive Electrodes for Aqueous Zinc-Metal Batteries. **2023**, 8, 1671-1679	0

114	A Fresh One-Step Spray Pyrolysis Approach to Prepare Nickel-Rich Cathode Material for Lithium-Ion Batteries.	0
113	Potassium pre-intercalated manganese dioxide nanoflakes for high-performance aqueous zinc ion batteries. **2023**, 58, 4853-4864	0
112	Understanding and Engineering Interfacial Adhesion in Solid-State Batteries with Metallic Anodes.	0
111	Electrochemistry and Stability of 1,1?-Ferrocene-Bisphosphonates. **2023**, 8, 10899-10905	0
110	Prediction of the Heat Generation Rate of Lithium-Ion Batteries Based on Three Machine Learning Algorithms. **2023**, 9, 165	0
109	Effect of Ion Species on Quinoxaline Reaction and Its Application in Nonaqueous Redox Flow Batteries. 2201520	0
108	Preparation of Tough, Binder-Free, and Self-Supporting LiFePO 4 Cathode by Using Mono-Dispersed Ultra-Long Single-Walled Carbon Nanotubes for High-Rate Performance Li-Ion Battery. 2207355	0
107	A ZnO decorated 3D copper foam as a lithiophilic host to construct composite lithium metal anodes for Li□2 batteries.	0
106	Boosting the sodium storage performance of Prussian blue analogs by single-crystal and high-entropy approach. **2023**, 58, 1-8	0
105	Double-layer phosphates coated Mn-based oxide cathodes for highly stable potassium-ion batteries. **2023**, 58, 101-109	0
104	Dopamine-intercalated vanadate hollow microtube arrays with S-doping for high-performance zinc-ion batteries: disorder/defect-induced clusters and a reversible phase transition. **2023**, 15, 6273-6284	0
103	Vanadium Oxide-Based Cathode Materials for Aqueous Zinc-Ion Batteries: Energy Storage Mechanism and Design Strategy. **2023**, 11, 118	0
102	Graphene-like Carbon Structure Synthesis from Biomass Pyrolysis: A Critical Review on Feedstock□Process□Properties Relationship. **2023**, 9, 31	0
101	MOF-Based 3D Ion-Conducting Network Enables High-Voltage All-Solid-State Lithium Metal Batteries at Room Temperature. **2023**, 5, 1136-1144	0
100	Preparation and electrochemical properties of thieno-[3,4-b] pyrazine conjugated polymer composite supercapacitor carbon powder electrode materials for Li-organic battery. 095400832311635	0
99	Solid-State Electrolytes in Lithium□Sulfur Batteries: Latest Progresses and Prospects. 2208164	0
98	Nanostructured Conducting Polymers and Their Applications in Energy Storage Devices. **2023**, 15, 1450	1
97	Electrochemical profiling method for diagnosis of inhomogeneous reactions in lithium-ion batteries. **2023**, 4, 101331	0

96	Single-Walled Carbon Nanotube Film as an Efficient Conductive Network for Si-Based Anodes. 2300094	0
95	Space-Confined Electrochemical Reactions and Materials for High-Energy-Density Batteries.	0
94	Hybrid Aqueous/Non-aqueous Electrolytes for Lithium-Ion and Zinc-Ion Batteries: A Mini-Review.	0
93	Sustainable high-energy aqueous zinc□manganese dioxide batteries enabled by stress-governed metal electrodeposition and fast zinc diffusivity.	0
92	Vanadium MXenes materials for next-generation energy storage devices. **2023**, 34, 252001	0
91	Dendrimer Based Binders Enable Stable Operation of Silicon Microparticle Anodes in Lithium-Ion Batteries. 2206858	0
90	Bisphenol-Derived Single-Ion Conducting Multiblock Copolymers as Lithium Battery Electrolytes: Impact of the Bisphenol Building Block. **2023**, 56, 2505-2514	0
89	Fundamentals, preparation, and mechanism understanding of Li/Na/Mg□n alloy anodes for liquid and solid-state lithium batteries and beyond.	0
88	Oxygen-defects evolution to stimulate continuous capacity increase in Co-free Li-rich layered oxides. **2023**,	0
87	Mass Transfer Behaviors and Battery Performance of a Ferrocyanide-Based Organic Redox Flow Battery with Different Electrode Shapes. **2023**, 16, 2846	0
86	Preparation of Fe2O3/Mn3O4/C Composites as High Performances Anode Materials for Lithium-Ion Batteries.	0
85	Development of organic redox-active materials in aqueous flow batteries: Current strategies and future perspectives.	0
84	Microstructure regulation of resin-based hard carbons via esterification cross-linking for high-performance sodium-ion batteries. **2023**, 10, 2404-2413	0
83	Highly stable lithium-ion wide-temperature storage performance achieved via anion-dominated solvation structure and electric double-layer engineering. **2023**, 567, 232975	0
82	Transition-Metal Dichalcogenides in Electrochemical Batteries and Solar Cells. **2023**, 14, 691	0
81	Research on Energy Storage Capacity Configuration Method and Performance Evaluation in New Energy Base. **2022**,	0
80	Design of High-Performance Defective Graphite-Type Anodes for Sodium-Ion Batteries. **2023**, 6, 3854-3861	0
79	Defect Modulation in Cobalt Manganese Oxide Sheets for Stable and High-Energy Aqueous Aluminum-Ion Batteries. 2301202	0

78	Prestoring lithium into SnO2 coated 3D carbon fiber cloth framework as dendrite-free lithium metal anode. **2024**, 84, 89-97	0
77	Mo Co-Doping LiNi0.83Co0.11Mn0.06O2 Stabilizes the Structure and Induces Compact Primary Particle To Improve the Electrochemical Performance. **2023**, 6, 3834-3843	0
76	Fundamental investigation on drying rates of cathodes and separators for sulfide-based all-solid-state batteries. 1-7	0
75	MXene-MoS2 nanocomposites via chemical vapor deposition with enhanced electrocatalytic activity for hydrogen evolution.	0
74	Degradation mechanism of polyethylene separators in lithium-ion batteries after prolonged cycling. **2023**, 40, 519-523	0
73	Improving the Initial Coulombic Efficiency of Carbonaceous Materials for Li/Na-Ion Batteries: Origins, Solutions, and Perspectives. **2023**, 6,	0
72	High-performance of surface-treated Si-flakes anode via a Schiff-base reaction processed at room-temperature. **2023**, 302, 127676	0
71	Research on the utilization of ultra-long carbon nanotubes in lithium-ion batteries based on an environment-friendly society. **2023**, 30, 56003-56015	0
70	Two-Dimensional Mesoporous Materials for Energy Storage and Conversion: Current Status, Chemical Synthesis and Challenging Perspectives. **2023**, 6,	0
69	Conjugated microporous polyimide cathodes for sodium/lithium-ion batteries with ultra-long cycling performance. **2023**, 464, 142658	0
68	Li-Doped Layered Na1.0Cu0.22Fe0.30Mn0.48O2 Cathode with Enhanced Electrochemical Performance for Sodium-Ion Batteries.	0
67	Electrolyte Solvation Structure Manipulation and Synthetic Optimization for Enhanced Potassium Storage of Tin Phosphide/Carbon Alloy-Based Electrode. **2023**, 13, 658	0
66	Predicting the Na+ ion transport properties of NaSICON materials using density functional theory and Kinetic Monte Carlo.	0
65	Uniform integration of SnO2 nanoparticles on graphene benefitting from the buffer vacancies induced by Al2O3 used as anode for lithium-ion batteries.	0
64	Constructing a conductive and buffer network on microscale silicon-based anodes for high-performance lithium-ion batteries. **2023**, 949, 169846	0
63	Fundamental Understanding and Facing Challenges in Structural Design of Porous Si-Based Anodes for Lithium-Ion Batteries.	0
62	The Anode Materials for Lithium-Ion and Sodium-Ion Batteries Based on Conversion Reactions: a Review.	0
61	Ultrastable Cu2+ Intercalation Chemistry Based on a Niobium Sulfide Nanosheet Cathode for Advanced Aqueous Storage Devices. **2023**, 17, 6497-6506	0

60	Carbon-Coated MnO Quantum Dot-Decorated Three-Dimensional Graphene Aerogel Composite for High-Performance Lithium-Ion Batteries. **2023**, 37, 6240-6247	0
59	Porous Hybrid Electrode Materials for High Energy Density Li-Ion and Li-S Batteries. **2023**, 193-214	0
58	A Microporous Bifunctional Electrochromic Energy-Storage Polymer of Thiophene, Triphenylamine, and Thienothiophene.	0
57	Recent Development in Topological Polymer Electrolytes for Rechargeable Lithium Batteries.	0
56	Fast Ion Transfer Associated with Dehydration and Modulation of Hydration Structure in Electric Double-Layer Capacitors Using Molecular Dynamics Simulations and Experiments. **2023**, 9, 212	0
55	The TWh challenge: Next generation batteries for energy storage and electric vehicles. **2023**, 1, 100015	0
54	Pressureless all-solid-state Na/S batteries with self-supporting Na 5 YSi 4 O 12 scaffolds.	0
53	Optimization of Sesamum indicum oil (sesame oil) derived activated carbon soot for electric double-layer capacitor (EDLC) application.	0
52	Two-dimensional TiCl2: a high-performance anode material for Na-ion batteries with high capacity and fast diffusion.	0
51	Highly Crystalline Prussian Blue for Kinetics Enhanced Potassium Storage.	0
50	A flexible axial Zn ion hybrid supercapacitor with high surface capacitance and long cycle life. **2023**, 953, 169995	0
49	An ab-initio study of hydrogen storage performance of Si2BN nanotubes decorated with group 8B transition metals. **2023**,	0
48	Solid□iquid□as Management for Low-Cost Hydrogen Gas Batteries.	0
47	Effects of Molecular Structure of Cross-Linked Solid Polymer Electrolytes on Ionic Conduction Behavior. **2023**, 170, 040510	0
46	Unraveling the Effect of Conductive Additives on Li-Ion Diffusion Using Electrochemical Impedance Spectroscopy: A Case Study of Graphene vs Carbon Black. **2023**, 170, 040515	0
45	Cycling performance of silicon-carbon composite anodes enhanced through phosphate surface treatment.	0
44	Asymmetric Swelling Behaviors of High-Energy-Density Lithium-Ion Batteries with a SiO x /Graphite Composite Anode.	0
43	Nanorod Array-Based Hierarchical NiO Microspheres as a Bifunctional Electrocatalyst for a Selective and Corrosion-Resistance Seawater Photo/Electrolysis System. **2023**, 13, 5516-5528	0

42	Bi2S3/rGO nanocomposites with covalent heterojunctions as a high-performance aqueous zinc ion battery material. **2023**,	0
41	Multiscale architected porous materials for renewable energy conversion and storage. **2023**, 59, 102768	0
40	Advances in Strategic Inhibition of Polysulfide Shuttle in Room-Temperature Sodium-Sulfur Batteries via Electrode and Interface Engineering. **2023**, 9, 223	0
39	Fully integrated design of a stretchable kirigami-inspired micro-sized zinc–sulfur battery.	0
38	Redox-active polynaphthalimides as versatile electrode materials for high-voltage, high-rate and long-cycle-life organic Li-ion batteries.	0
37	Scalable Interlayer Nanostructure Design for High-Rate (10C) Submicron Silicon-Film Electrode by Incorporating Silver Nanoparticles. **2023**, 15, 18845-18856	0
36	Enhancement of Microgrid Frequency Stability Based on the Combined Power-to-Hydrogen-to-Power Technology under High Penetration Renewable Units. **2023**, 16, 3377	0
35	Recent Advances in Water-Splitting Electrocatalysts Based on Electrodeposition. **2023**, 16, 3044	0
34	Mitigating Concentration Polarization through Acid–Base Interaction Effects for Long-Cycling Lithium Metal Anodes.	0
33	Relation between microscopic structure and macroscopic properties in polyacrylonitrile-based lithium-ion polymer gel electrolytes. **2023**, 158, 144705	0
32	Revealing the Dual-Layered Solid Electrolyte Interphase on Lithium Metal Anodes via Cryogenic Electron Microscopy. 2193-2200	0
31	Synthesis of 2D Co-MOF Nanosheets and Low-Temperature Calcination Activation for Lithium-Ion Batteries.	0
30	Cryo-TEM studies of binder free high performance FeF2 cathode based full cells enabled by surface engineering. **2023**, 59, 102779	0
29	Effect of solvent on the crystal phase, morphology, and sodium storage performance of FeSe2.	0
28	Tubular NiCo2S4 Hierarchical Architectures as Sulfur Hosts for Advanced Rechargeable Lithium Sulfur Batteries. **2023**, 100159	0
27	Humic acid-based interlocked MOF: Enabling stable cycling performance at ultra-high current densities for lithium-ion batteries. **2023**, 455, 142422	0
26	Co-doped PVA-borax anodic supercapacitors with high capacity and self-healability features. **2023**, 396, 116230	0
25	In situ construction of inorganic component-rich polymers as interfacial stabilizers for high-rate lithium metal batteries. **2023**, 170177	0

24	Multifunctional solvent molecule design enables high-voltage Li-ion batteries. **2023**, 14,	0
23	High-Power and Ultrastable Aqueous Calcium-Ion Batteries Enabled by Small Organic Molecular Crystal Anodes.	0
22	Recent Advances and Challenges of Anodes for Aqueous Alkaline Batteries. **2023**, 100102	0
21	Optimized Pinecone-Squama-Structure MoS2-Coated CNT and Graphene Framework as Binder-Free Anode for Li-Ion Battery with High Capacity and Cycling Stability. **2023**, 16, 3218	0
20	New insights on suppressing oxygen redox in layered oxide cathode of sodium-ion batteries with ribbon superstructure and solid-solution behavior. **2023**,	0
19	Provision of regulation service to power systems by energy storages based on a battery degradation cost model. **2023**, 2474, 012013	0
18	Organics-free aqueous hybrid electrolyte for high-performance zinc ion hybrid capacitors operating at low temperature. **2023**, 571, 233061	0
17	Freestanding Co1.29Ni1.71O4 Nanowire Array Cathodes with Ultralong Cycle Life for Rechargeable Hybrid Zinc Batteries.	0
16	Artificial Interphase Design Employing Inorganic□Organic Components for High-Energy Lithium-Metal Batteries.	0
15	Tailoring Conversion-Reaction-Induced Alloy Interlayer for Dendrite-Free Sulfide-Based All-Solid-State Lithium-Metal Battery.	0
14	Ultra-strong zinc-ion adsorption layer constructed by zeolite molecular sieve for advanced aqueous zinc-ion batteries. **2023**, 571, 233090	0
13	Studies on the Application of Polyimidobenzimidazole Based Nanofiber Material as the Separation Membrane of Lithium-Ion Battery. **2023**, 15, 1954	0
12	Optimal Allocation of Hybrid Renewable Energy System in Distribution Network using Arithmetic Optimization Algorithm. 0309524X2311668	0
11	Toward stable and highly reversible zinc anodes for aqueous batteries via electrolyte engineering. **2023**,	0
10	Aqueous Zinc□hlorine Battery Modulated by a MnO 2 Redox Adsorbent.	0
9	Polylatic Acid Nanofiber-Guided Uniform Lithium Deposition for Stable Lithium Metal Anodes. **2023**, 170, 050517	0
8	One-step synthesis of nitrogen and sulfur co-doped hierarchical porous carbon derived from acesulfame potassium as a dual-function agent for supercapacitors and lithium-sulfur batteries. **2023**, 66, 107214	0
7	Carbon Nanomaterials from Biomass for Solar Energy Conversion and Storage. **2023**, 301-329	0

6	Recent advances and perspectives of electrode materials for emerging ammonium-ion storage: From mechanistic insights to practical applications. **2023**, 466, 143197	0
5	A Self-Growing 3D Porous Sn Protective Layer Enhanced Zn Anode. **2023**, 9, 262	0
4	Robust Flexible Textile Tribovoltaic Nanogenerator via a 2D□2H-MoS 2 /Ta 4 C 3 Dynamic Heterojunction.	0
3	Advances in Transition-Metal-Based Dual-Atom Oxygen Electrocatalysts.	0
2	Mechanisms of adsorption and diffusion of Na on a VSe2 monolayer with engineering-induced vacancies.	0
1	Recent Progress in the Emerging Modification Strategies for Layered Oxide Cathodes toward Practicable Sodium Ion Batteries.	0