The Li-ion rechargeable battery: a perspective

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#	Paper	IF	Citations
2293	Stable cycling of lithium sulfide cathodes through strong affinity with a bifunctional binder. **2013**, 4, 3673		366
2292	Managing voids of Si anodes in lithium ion batteries. **2013**, 5, 8864-73		49
2291	Aligned carbon nanotube-silicon sheets: a novel nano-architecture for flexible lithium ion battery electrodes. **2013**, 25, 5109-14		192
2290	Controlled synthesis of hierarchical CoxMn3□O4 array micro-/nanostructures with tunable morphology and composition as integrated electrodes for lithium-ion batteries. **2013**, 6, 2664-2671		249
2289	A class of sp3 boron-based single-ion polymeric electrolytes for lithium ion batteries. **2013**, 3, 14934		33
2288	The mechanistic exploration of porous activated graphene sheets-anchored SnO2 nanocrystals for application in high-performance Li-ion battery anodes. **2013**, 15, 15098-105		31
2287	Bifunctional composite catalysts using Co3O4 nanofibers immobilized on nonoxidized graphene nanoflakes for high-capacity and long-cycle Li-O2 batteries. **2013**, 13, 4190-7		306
2286	Three-dimensional mesoporous Sn□Ni@C network derived from cyanogel coordination polymers: towards high-performance anodes for lithium storage. **2013**, 15, 10340		27
2285	Neutron Diffraction and Magnetic Susceptibility Studies on a High-Voltage Li1.2Mn0.55Ni0.15Co0.10O2 Lithium Ion Battery Cathode: Insight into the Crystal Structure. **2013**, 25, 4064-4070		76
2284	High volumetric capacity silicon-based lithium battery anodes by nanoscale system engineering. **2013**, 13, 5578-84		159
2283	A new, high performance CuO/LiNi0.5Mn1.5O4 lithium-ion battery. **2013**, 1, 15329		44
2282	Conjugated Microporous Polymer-Derived Porous Hard Carbon as High-Rate Long-Life Anode Materials for Lithium Ion Batteries. **2013**, 1, 721-725		20
2281	Correlating cation ordering and voltage fade in a lithium-manganese-rich lithium-ion battery cathode oxide: a joint magnetic susceptibility and TEM study. **2013**, 15, 19496-509		91
2280	Key electronic states in lithium battery materials probed by soft X-ray spectroscopy. **2013**, 190, 64-74		79
2279	Hollow carbon-nanotube/carbon-nanofiber hybrid anodes for Li-ion batteries. *Journal of the American Chemical Society*, **2013**, 135, 16280-3	16.4	367
2278	Electrospun lithium metal oxide cathode materials for lithium-ion batteries. **2013**, 3, 25576		58
2277	Effects of Non-Uniform Current Distribution on Energy Density of Li-Ion Cells. **2013**, 160, A2299-A2305		50

2276	Electrochemistry. **2013**,	
2275	Lithium-sulfur batteries: electrochemistry, materials, and prospects. **2013**, 52, 13186-200	1989
2274	Fabrication of a sandwich structured electrode for high-performance lithium–sulfur batteries. **2013**, 1, 14280	37
2273	Improvement in LiFePO4–Li battery performance via poly(perfluoroalkylsulfonyl)imide (PFSI) based ionene composite binder. **2013**, 1, 15016	30
2272	Fabrication of FeF3 nanocrystals dispersed into a porous carbon matrix as a high performance cathode material for lithium ion batteries. **2013**, 1, 15060	61
2271	Electrochemical insertion of Li into nanocrystalline MnFe2O4: a study of the reaction mechanism. **2013**, 3, 23001	29
2270	Li2MnSiO4@C nanocomposite as a high-capacity cathode material for Li-ion batteries. **2013**, 1, 12650	39
2269	A stable silicon/graphene composite using solvent exchange method as anode material for lithium ion batteries. **2013**, 63, 397-403	43
2268	Study of spinel Li4Ti5O12 electrode reaction mechanism by electrochemical impedance spectroscopy. **2013**, 108, 841-851	34
2267	A facile microwave-assisted route to Co(OH)2 and Co3O4 nanosheet for Li-ion battery. **2013**, 578, 349-354	36
2266	A layered oxalatophosphate framework as a cathode material for Li-ion batteries. **2013**, 1, 5721	65
2265	In Charge of the World: Electrochemical Energy Storage. **2013**, 4, 1295-7	49
2264	Facile synthesis of free-standing silicon membranes with three-dimensional nanoarchitecture for anodes of lithium ion batteries. **2013**, 13, 3340-6	63
2263	LiNi(0.5)Mn(1.5)O4 porous nanorods as high-rate and long-life cathodes for Li-ion batteries. **2013**, 13, 2822-5	233
2262	Microwave–Hydrothermal Crystallization of Polymorphic MnO2 for Electrochemical Energy Storage. **2013**, 117, 10770-10779	148
2261	Long-life and high-rate Li3V2(PO4)3/C nanosphere cathode materials with three-dimensional continuous electron pathways. **2013**, 5, 4864-9	77
2260	Enhanced electrochemical performances of 5 V spinel LiMn1.58Ni0.42O4 cathode materials by coating with LiAlO2. **2013**, 239, 181-188	54
2259	Feasibility of Lithium Storage on Graphene and Its Derivatives. **2013**, 4, 1737-42	253

2258	Structural and Electrochemical Study of Al2O3 and TiO2 Coated Li1.2Ni0.13Mn0.54Co0.13O2 Cathode Material Using ALD. **2013**, 3, 1299-1307	342
2257	Controlling Size, Crystallinity, and Electrochemical Performance of Li4Ti5O12 Nanocrystals. **2013**, 25, 5023-5030	52
2256	Advances inin situpowder diffraction of battery materials: a case study of the new beamline P02.1 at DESY, Hamburg. **2013**, 46, 1117-1127	46
2255	Why Do Sulfone-Based Electrolytes Show Stability at High Voltages? Insight from Density Functional Theory. **2013**, 4, 3992-3999	80
2254	Physicochemical and Electrochemical Properties of Ionic Liquids Containing Aprotic Heterocyclic Anions Doped With Lithium Salts. **2013**, 160, A1604-A1610	30
2253	Metal oxychlorides as cathode materials for chloride ion batteries. **2013**, 52, 13621-4	116
2252	Mesoporous anatase TiO2 nanorods as thermally robust anode materials for Li-ion batteries: detailed insight into the formation mechanism. **2013**, 19, 17439-44	15
2251	Distinct charge dynamics in battery electrodes revealed by in situ and operando soft X-ray spectroscopy. **2013**, 4, 2568	179
2250	ChemInform Abstract: The Li-Ion Rechargeable Battery: A Perspective. **2013**, 44, no-no	4
2249	Metal Oxychlorides as Cathode Materials for Chloride Ion Batteries. **2013**, 125, 13866-13869	13
2248	Lithium-Schwefel-Batterien: Elektrochemie, Materialien und Perspektiven. **2013**, 125, 13426-13441	163
2247	Fabrication of a fayalite@C nanocomposite with superior lithium storage for lithium ion battery anodes. **2014**, 4, 58260-58264	24
2246	Nonflammable perfluoropolyether-based electrolytes for lithium batteries. **2014**, 111, 3327-31	145
2245	Lithium-sulfur batteries. **2014**, 39, 436-442	249
2244	Atomic layer deposition of lithium phosphates as solid-state electrolytes for all-solid-state microbatteries. **2014**, 25, 504007	67
2243	Gemischte Übergangsmetalloxide: Design, Synthese und energierelevante Anwendungen. **2014**, 126, 1512-1530	86
2242	Ambient lithium-SO2 batteries with ionic liquids as electrolytes. **2014**, 53, 2099-103	57
2241	An electrochemical cell for in operando studies of lithium/sodium batteries using a conventional x-ray powder diffractometer. **2014**, 85, 104103	20

2240	A Polyamide Single-Ion Electrolyte Membrane for Application in Lithium-Ion Batteries. **2014**, 2, 698-704	26
2239	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
2238	Mesoporous Prussian Blue Analogues: Template-Free Synthesis and Sodium-Ion Battery Applications. **2014**, 126, 3198-3201	38
2237	Functionalization of Ca2MnO4□ by controlled calcium extraction: Activation for electrochemical Li intercalation. **2014**, 266, 36-43	3
2236	Ambient Lithium–SO2 Batteries with Ionic Liquids as Electrolytes. **2014**, 126, 2131-2135	18
2235	Manipulating the Electronic Structure of Li-Rich Manganese-Based Oxide Using Polyanions: Towards Better Electrochemical Performance. **2014**, 24, 5112-5118	199
2234	TiO2-B nanosheets/anatase nanocrystals co-anchored on nanoporous graphene: in situ reduction-hydrolysis synthesis and their superior rate performance as an anode material. **2014**, 20, 1383-8	53
2233	A lithium ion battery exploiting a composite Fe2O3 anode and a high voltage Li1.35Ni0.48Fe0.1Mn1.72O4 cathode. **2014**,	5
2232	Formation of quasi-mesocrystal ZnMn2O4 twin microspheres via an oriented attachment for lithium-ion batteries. **2014**, 2, 14236-14244	82
2231	An intuitive and efficient method for cell voltage prediction of lithium and sodium-ion batteries. **2014**, 5, 5559	33
2230	Enhancement of charge and energy storage in PbZrO3 thin films by local field engineering. **2014**, 105, 043902	17
2229	A rapid combustion route to synthesize high-performance nanocrystalline cathode materials for Li-ion batteries. **2014**, 16, 10969-10976	13
2228	Study and modeling of the Solid Electrolyte Interphase behavior on nano-silicon anodes by Electrochemical Impedance Spectroscopy. **2014**, 137, 751-757	49
2227	Computational studies of solid electrolyte interphase formation. **2014**, 57-87	6
2226	Morphology and surface properties of LiVOPO4: a first principles study. **2014**, 16, 24604-9	16
2225	In situ Raman study of lithium-ion intercalation into microcrystalline graphite. **2014**, 172, 223-37	199
2224	High-pressure synthesis, crystal structure, and magnetic properties of KSbO-type 5 oxides KOsO and BiOsO. **2014**, 15, 064901	8
2223	Li2MnO3 based Li-rich cathode materials: towards a better tomorrow of high energy lithium ion batteries. **2014**, 29, A59-A69	21

2222	11. Batteries/Supercapacitors: Hybrids with CNTs. **2014**,	
2221	9. Functional ionic liquids electrolytes in lithium-ion batteries. **2014**, 189-206	
2220	Hierarchical functional layers on high-capacity lithium-excess cathodes for superior lithium ion batteries. **2014**, 247, 95-104	33
2219	Electrochemical investigation of Li-excess layered oxide cathode materials/mesocarbon microbead in 18650 batteries. **2014**, 123, 317-324	12
2218	Li2ZrO3-coated 0.4Li2MnO3□0.6LiNi1/3Co1/3Mn1/3O2 for high performance cathode material in lithium-ion battery. **2014**, 264, 147-154	86
2217	Energy applications of ionic liquids. **2014**, 7, 232-250	1244
2216	Toward high capacity and stable manganese-spinel electrode materials: A case study of Ti-substituted system. **2014**, 245, 570-578	44
2215	Correlation Between Atomic Structure and Electrochemical Performance of Anodes Made from Electrospun Carbon Nanofiber Films. **2014**, 4, 1301448	116
2214	Capacity-controllable Li-rich cathode materials for lithium-ion batteries. **2014**, 6, 92-102	47
2213	Mixed transition-metal oxides: design, synthesis, and energy-related applications. **2014**, 53, 1488-504	1730
2212	Hierarchical tubular structures constructed by carbon-coated □Fe□□ nanorods for highly reversible lithium storage. **2014**, 10, 1741-5	101
2211	Comparative study of LiMnPO4 cathode materials synthesized by solvothermal methods using different manganese salts. **2014**, 16, 766-774	33
2210	High-modulus, high-conductivity nanostructured polymer electrolyte membranes via polymerization-induced phase separation. **2014**, 14, 122-6	215
2209	Ethylcellulose-coated polyolefin separators for lithium-ion batteries with improved safety performance. **2014**, 101, 1140-6	48
2208	Mesoporous Prussian blue analogues: template-free synthesis and sodium-ion battery applications. **2014**, 53, 3134-7	196
2207	ReaxFF Reactive Force Field Simulations on the Influence of Teflon on Electrolyte Decomposition during Li/SWCNT Anode Discharge in Lithium-Sulfur Batteries. **2014**, 161, E3009-E3014	60
2206	Amorphous RuO2 coated on carbon spheres as excellent electrode materials for supercapacitors. **2014**, 4, 6927	49
2205	Iron-Oxide-Based Advanced Anode Materials for Lithium-Ion Batteries. **2014**, 4, 1300958	432

2204	Review on recent progress of nanostructured anode materials for Li-ion batteries. **2014**, 257, 421-443	1494
2203	Pilot-scale elaboration of graphite/microfibrillated cellulose anodes for Li-ion batteries by spray deposition on a forming paper sheet. **2014**, 243, 372-379	24
2202	Polymer-pyrolysis assisted synthesis of vanadium trioxide and carbon nanocomposites as high performance anode materials for lithium-ion batteries. **2014**, 261, 184-187	47
2201	The synthesis, characterization and electrochemical properties of V3O7□H2O/CNT Nanocomposite. **2014**, 262, 30-34	14
2200	Carbon as catalyst and support for electrochemical energy conversion. **2014**, 75, 5-42	359
2199	Sol-gel synthesis of aliovalent vanadium-doped LiNi(0.5)Mn(1.5)O(4) cathodes with excellent performance at high temperatures. **2014**, 7, 829-34	52
2198	Pre-lithiated graphene nanosheets as negative electrode materials for Li-ion capacitors with high power and energy density. **2014**, 264, 108-113	130
2197	Ionic liquids at electrified interfaces. **2014**, 114, 2978-3036	905
2196	Electrochemical Kinetics of Nanostructured Nb2O5Electrodes. **2014**, 161, A718-A725	188
2195	3-D dumbbell-like LiNi1/3Mn1/3Co1/3O2 cathode materials assembled with nano-building blocks for lithium-ion batteries. **2014**, 257, 186-191	89
2194	Synthesis of flower-like Li3V2(PO4)3/C cathode with mixed morphology for advanced lithium-ion batteries. **2014**, 20, 897-900	9
2193	Facilitated Li+ ion transfer across the water/1,2-dichloroethane interface by the solvation effect. **2014**, 50, 1015-7	20
2192	Three-dimensional nanoporous Fe□/Fe□-graphene heterogeneous thin films for lithium-ion batteries. **2014**, 8, 3939-46	151
2191	Role of surface functional groups in ordered mesoporous carbide-derived carbon/ionic liquid electrolyte double-layer capacitor interfaces. **2014**, 6, 2922-8	57
2190	Surface-enabled superior lithium storage of high-quality ultrathin NiO nanosheets. **2014**, 2, 7904	113
2189	Facile synthesis of Li2S□olypyrrole composite structures for high-performance Li2S cathodes. **2014**, 7, 672	237
2188	Synthesis of hierarchical MoS2 and its electrochemical performance as an anode material for lithium-ion batteries. **2014**, 2, 3498-3504	99
2187	Recent developments in garnet based solid state electrolytes for thin film batteries. **2014**, 18, 29-38	60

2186	Self-assembly of graphene oxide/polyaniline multilayer counter electrodes for efficient dye-sensitized solar cells. **2014**, 121, 136-142		26
2185	Exceptional rate performance of functionalized carbon nanofiber anodes containing nanopores created by (Fe) sacrificial catalyst. **2014**, 4, 88-96		84
2184	Pristine organo-imido polyoxometalates as an anode for lithium ion batteries. **2014**, 4, 7374		36
2183	Effect of lithium extraction on the stabilities, electrochemical properties, and bonding characteristics of LiFePO4 cathode materials: A first-principles investigation. **2014**, 40, 2655-2661		7
2182	Enhanced cycling stability of silicon anode by in situ polymerization of poly(aniline-co-pyrrole). **2014**, 4, 54134-54139		9
2181	Core-shell ellipsoidal MnCo□□anode with micro-/nano-structure and concentration gradient for lithium-ion batteries. **2014**, 6, 21325-34		102
2180	Understanding the stepwise capacity increase of high energy low-Co Li-rich cathode materials for lithium ion batteries. **2014**, 2, 18767-18774		43
2179	Lithiation of SiO2 in Li-ion batteries: in situ transmission electron microscopy experiments and theoretical studies. **2014**, 14, 7161-70		91
2178	Lithium-ion transport through a tailored disordered phase on the LiNi0.5 Mn1.5 O4 surface for high-power cathode materials. **2014**, 7, 2248-54		23
2177	One-nanometer-precision control of Al(2)O(3) nanoshells through a solution-based synthesis route. **2014**, 53, 12776-80		77
2176	Continuous synthesis of Li4Ti5O12 nanoparticles in supercritical fluids and their electrochemical performance for anode in Li-ion batteries. **2014**, 258, 357-366		20
2175	Stable Cycling of Fe O Nanorice as an Anode through Electrochemical Porousness and the Solid-Electrolyte Interphase Thermolysis Approach. **2014**, 79, 143-150		11
2174	Ion intercalation into two-dimensional transition-metal carbides: global screening for new high-capacity battery materials. *Journal of the American Chemical Society*, **2014**, 136, 16270-6	16.4	404
2173	First-principles analysis of defect-mediated Li adsorption on graphene. **2014**, 6, 21141-50		92
2172	A high-energy room-temperature sodium-sulfur battery. **2014**, 26, 1261-5		446
2171	A High-Capacity Tellurium@Carbon Anode Material for Lithium-Ion Batteries. **2014**, 2, 757-762		54
2170	One-Nanometer-Precision Control of Al2O3 Nanoshells through a Solution-Based Synthesis Route. **2014**, 126, 12990-12994		14
2169	Metallic BSi3 Silicene: A Promising High Capacity Anode Material for Lithium-Ion Batteries. **2014**, 118, 25836-25843		52

2168	Rechargeable organic lithium-ion batteries using electron-deficient benzoquinones as positive-electrode materials with high discharge voltages. **2014**, 2, 19347-19354		87
2167	Abnormal excess capacity of conjugated dicarboxylates in lithium-ion batteries. **2014**, 6, 19118-26		54
2166	Recent progress in Li-rich layered oxides as cathode materials for Li-ion batteries. **2014**, 4, 63268-63284		149
2165	All-solid-state lithium organic battery with composite polymer electrolyte and pillar[5]quinone cathode. *Journal of the American Chemical Society*, **2014**, 136, 16461-4	16.4	305
2164	Pressure induced manifold enhancement of Li-kinetics in FCC fullerene. **2014**, 16, 21688-93		3
2163	Novel mesoporous Si@C microspheres as anodes for lithium-ion batteries. **2014**, 16, 4135-42		79
2162	Structural limitations for optimizing garnet-type solid electrolytes: a perspective. **2014**, 43, 16133-8		49
2161	Failure mechanisms of nano-silicon anodes upon cycling: an electrode porosity evolution model. **2014**, 16, 17142-53		105
2160	Sulfur encapsulated in porous hollow CNTs@CNFs for high-performance lithium–sulfur batteries. **2014**, 2, 10126-10130		87
2159	Electrochemical Nanowire Devices for Energy Storage. **2014**, 13, 10-15		7
2158	Porous tin film synthesized by electrodeposition and the electrochemical performance for lithium-ion batteries. **2014**, 149, 330-336		13
2157	Insights into the reversible oxygen reduction reaction in a series of phosphonium-based ionic liquids. **2014**, 16, 25062-70		24
2156	Titania-carbon nanocomposite anodes for lithium ion batteries--effects of confined growth and phase synergism. **2014**, 6, 18215-27		22
2155	Graphene wrapping as a protective clamping layer anchored to carbon nanofibers encapsulating Si nanoparticles for a Li-ion battery anode. **2014**, 6, 12718-26		44
2154	High performance lithium–sulfur batteries: advances and challenges. **2014**, 2, 12662-12676		235
2153	Two-dimensional layered transition metal disulphides for effective encapsulation of high-capacity lithium sulphide cathodes. **2014**, 5, 5017		461
2152	Solvothermal route based in situ carbonization to Fe3O4@C as anode material for lithium ion battery. **2014**, 8, 126-132		50
2151	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

2150	Preparation and electrochemical performance of a porous polymer-derived silicon carbonitride anode by hydrofluoric acid etching for lithium ion batteries. **2014**, 4, 23694	20
2149	Lithium and sodium battery cathode materials: computational insights into voltage, diffusion and nanostructural properties. **2014**, 43, 185-204	765
2148	Bioinspired nanoarchitectonics as emerging drug delivery systems. **2014**, 38, 5149-5163	118
2147	Li-rich anti-perovskite Li3OCl films with enhanced ionic conductivity. **2014**, 50, 11520-2	95
2146	Metal hydroxides as a conversion electrode for lithium-ion batteries: a case study with a Cu(OH)2 nanoflower array. **2014**, 2, 18515-18522	31
2145	Enhanced electrochemical stability of high-voltage LiNi0.5Mn1.5O4 cathode by surface modification using atomic layer deposition. **2014**, 16, 1	21
2144	A gel single ion polymer electrolyte membrane for lithium-ion batteries with wide-temperature range operability. **2014**, 4, 21163-21170	41
2143	An organic ionic plastic crystal electrolyte for rate capability and stability of ambient temperature lithium batteries. **2014**, 7, 3352-3361	90
2142	Superhalogens as building blocks of halogen-free electrolytes in lithium-ion batteries. **2014**, 53, 13916-9	93
2141	The use of 6Li{7Li}-REDOR NMR spectroscopy to compare the ionic conductivities of solid-state lithium ion electrolytes. **2014**, 16, 2515-26	11
2140	Benzylamine-directed growth of olivine-type LiMPO4 nanoplates by a supercritical ethanol process for lithium-ion batteries. **2014**, 2, 17400-17407	26
2139	Mn0.5Co0.5Fe2O4 nanoparticles highly dispersed in porous carbon microspheres as high performance anode materials in Li-ion batteries. **2014**, 6, 6805-11	14
2138	Correlation of intercalation potential with d-electron configurations for cathode compounds of lithium-ion batteries. **2014**, 16, 13255-61	5
2137	Understanding the degradation mechanism of rechargeable lithium/sulfur cells: a comprehensive study of the sulfur-graphene oxide cathode after discharge-charge cycling. **2014**, 16, 16931-40	95
2136	Mesoporous VO2 nanowires with excellent cycling stability and enhanced rate capability for lithium batteries. **2014**, 4, 33332-33337	45
2135	In situ powder X-ray diffraction study of the hydro-thermal formation of LiMn2O4 nanocrystallites. **2014**, 43, 15075-84	8
2134	X-Ray absorption spectroscopy of LiBF4 in propylene carbonate: a model lithium ion battery electrolyte. **2014**, 16, 23568-75	40
2133	Direct measurement of the chemical reactivity of silicon electrodes with LiPF6-based battery electrolytes. **2014**, 50, 3081-4	52

2132	High-capacity full lithium-ion cells based on nanoarchitectured ternary manganese–nickel–cobalt carbonate and its lithiated derivative. **2014**, 2, 14947	47
2131	Sandwich-structured PVdF/PMIA/PVdF nanofibrous separators with robust mechanical strength and thermal stability for lithium ion batteries. **2014**, 2, 14511-14518	162
2130	An XPS/AES comparative study of the surface behaviour of nano-silicon anodes for Li-ion batteries. **2014**, 29, 1120-1131	103
2129	SnO2 decorated graphene nanocomposite anode materials prepared via an up-scalable wet-mechanochemical process for sodium ion batteries. **2014**, 4, 50148-50152	42
2128	Particle shapes and surface structures of olivine NaFePO in comparison to LiFePO **2014**, 16, 21788-94	52
2127	Hierarchical CoNiO2 structures assembled from mesoporous nanosheets with tunable porosity and their application as lithium-ion battery electrodes. **2014**, 38, 3084-3091	24
2126	A sandwich structure of mesoporous anatase TiO2 sheets and reduced graphene oxide and its application as lithium-ion battery electrodes. **2014**, 4, 43039-43046	32
2125	Facile fabrication of stable monolayer and few-layer graphene nanosheets as superior sorbents for persistent aromatic pollutant management in water. **2014**, 2, 18219-18224	52
2124	Mesocrystals as electrode materials for lithium-ion batteries. **2014**, 9, 499-524	110
2123	High electrochemical performances of MoO3@MnO2 core-shell nanorods as lithium-ion battery anodes. **2014**, 146, 411-418	61
2122	Role of van der Waals Forces in Thermodynamics and Kinetics of Layered Transition Metal Oxide Electrodes: Alkali and Alkaline-Earth Ion Insertion into V2O5. **2014**, 118, 19599-19607	63
2121	Better than crystalline: amorphous vanadium oxide for sodium-ion batteries. **2014**, 2, 18208-18214	209
2120	Architectures of tavorite LiFe(PO4)(OH)(0.5)F(0.5) hierarchical microspheres and their lithium storage properties. **2014**, 6, 11041-5	11
2119	Dependence of the Li-ion conductivity and activation energies on the crystal structure and ionic radii in Li MLa Ta O **2014**, 6, 10900-7	59
2118	Nonrigid Band Behavior of the Electronic Structure of LiCoO2 Thin Film during Electrochemical Li Deintercalation. **2014**, 26, 3948-3956	78
2117	The Role of Carbonate and Sulfite Additives in Propylene Carbonate-Based Electrolytes on the Formation of SEI Layers at Graphitic Li-Ion Battery Anodes. **2014**, 161, A1415-A1421	33
2116	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
2115	Nanowire electrodes for electrochemical energy storage devices. **2014**, 114, 11828-62	552

2114	First-Principles Studies of Li Nucleation on Graphene. **2014**, 5, 1225-9	72
2113	Lithium storage properties of pristine and (Mg, Cu) codoped ZnFe2O4 nanoparticles. **2014**, 6, 10744-53	78
2112	Facile synthesis of iron-based compounds as high performance anode materials for Li-ion batteries. **2014**, 4, 36507	15
2111	Green energy storage chemistries based on neutral aqueous electrolytes. **2014**, 2, 10739-10755	100
2110	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
2109	Self-assembled LiFePO4 nanowires with high rate capability for Li-ion batteries. **2014**, 50, 9569-72	46
2108	An Li-rich oxide cathode material with mosaic spinel grain and a surface coating for high performance Li-ion batteries. **2014**, 2, 15640	65
2107	Physicochemical Investigation of Adiponitrile-Based Electrolytes for Electrical Double Layer Capacitor. **2014**, 118, 14107-14123	39
2106	Oxygen Reduction Contributing to Charge Transfer during the First Discharge of the CeO2Bi2Fe4O9Li Battery: In Situ X-ray Diffraction and X-ray Absorption Near-Edge Structure Investigation. **2014**, 118, 14711-14722	12
2105	Synthesis, Characterization and Battery Performance of A Lithium Poly (4-vinylphenol) Phenolate Borate Composite Membrane. **2014**, 139, 264-269	22
2104	Gel polymer electrolyte for lithium-ion batteries comprising cyclic carbonate moieties. **2014**, 271, 239-244	40
2103	Recycling of cobalt from spent Li-ion batteries as Co(OH)2 and the application of Co3O4 as a pseudocapacitor. **2014**, 270, 158-165	39
2102	Prediction and characterization of MXene nanosheet anodes for non-lithium-ion batteries. **2014**, 8, 9606-15	644
2101	Nitrogen and sulfur codoped graphene: multifunctional electrode materials for high-performance li-ion batteries and oxygen reduction reaction. **2014**, 26, 6186-92	532
2100	Vine-like MoS2 anode materials self-assembled from 1-D nanofibers for high capacity sodium rechargeable batteries. **2014**, 6, 10975-81	136
2099	New Horizons for Conventional Lithium Ion Battery Technology. **2014**, 5, 3313-24	192
2098	Synthesis of self-stacked CuFe2O4e2O3 porous nanosheets as a high performance Li-ion battery anode. **2014**, 2, 19330-19337	16
2097	Surface-enhanced redox chemistry of polysulphides on a metallic and polar host for lithium-sulphur batteries. **2014**, 5, 4759	972

2096	A lithium anode protection guided highly-stable lithium-sulfur battery. **2014**, 50, 14209-12	316
2095	MnO nanoparticles interdispersed in 3D porous carbon framework for high performance lithium-ion batteries. **2014**, 6, 12713-8	71
2094	High capacity Li storage in sulfur and nitrogen dual-doped graphene networks. **2014**, 79, 310-320	92
2093	Nanostructured Li 3 V 2 (PO 4) 3 /C composite as high-rate and long-life cathode material for lithium ion batteries. **2014**, 143, 297-304	32
2092	Facile Synthesis of hybrid phase Li2NaV2(PO4)3 and its application in lithium ion full cell: Li2NaV2(PO4)3|| Li2NaV2(PO4)3. **2014**, 147, 498-505	18
2091	MoO2@carbon hollow microspheres with tunable interiors and improved lithium-ion battery anode properties. **2014**, 16, 20570-7	37
2090	First-Principles Study of an Ethoxycarbonyl-Based Organic Electrode Material of Lithium Battery. **2014**, 118, 21813-21818	25
2089	An advanced lithium-ion battery based on a graphene anode and a lithium iron phosphate cathode. **2014**, 14, 4901-6	347
2088	Formation of stable phosphorus-carbon bond for enhanced performance in black phosphorus nanoparticle-graphite composite battery anodes. **2014**, 14, 4573-80	627
2087	Characterization of solid electrolyte interphase on lithium electrodes cycled in ether-based electrolytes for lithium batteries. **2014**, 719, 122-126	33
2086	Facile and cost effective synthesis of mesoporous spinel NiCo2O4 as an anode for high lithium storage capacity. **2014**, 6, 10071-6	109
2085	Self-assembly of nano/micro-structured Fe3O4 microspheres among 3D rGO/CNTs hierarchical networks with superior lithium storage performances. **2014**, 25, 225401	23
2084	Exploring high performance VOPO4 for lithium batteries: A comparison between and polymorphs. **2014**, 713, 119-124	9
2083	Li(+)-conductive polymer-embedded nano-Si particles as anode material for advanced Li-ion batteries. **2014**, 6, 3508-12	72
2082	High-capacity Li2S graphene oxide composite cathodes with stable cycling performance. **2014**, 5, 1396	99
2081	Lithium Intercalation into the Jarosite-type Hydroxysulfate: A Topotactic Reversible Reaction from a Crystalline Phase to an Inorganic Polymer-like Structure. **2014**, 26, 4521-4527	25
2080	Inverse opal-inspired, nanoscaffold battery separators: a new membrane opportunity for high-performance energy storage systems. **2014**, 14, 4438-48	68
2079	Embedding NiCo2O4 nanoparticles into a 3DHPC assisted by CO2-expanded ethanol: a potential lithium-ion battery anode with high performance. **2014**, 6, 10813-20	49

2078	Enhanced Capacity of Polypyrrole/Anthraquinone Sulfonate/Graphene Composite as Cathode in Lithium Batteries. **2014**, 138, 481-485		13
2077	Structural and Electrochemical Evidence of Layered to Spinel Phase Transformation of Li and Mn Rich Layered Cathode Materials of the Formulae xLi[Li1/3Mn2/3]O2.(1-x)LiMn1/3Ni1/3Co1/3O2(x = 0.2, 0.4, 0.6) upon Cycling. **2014**, 161, A1534-A1547		73
2076	Morphology and modulus evolution of graphite anode in lithium ion battery: An in situ AFM investigation. **2014**, 57, 178-183		49
2075	Interpenetrating network V2O5 nanosheets/carbon nanotubes nanocomposite for fast lithium storage. **2014**, 4, 46624-46630		26
2074	Mechanical force-driven growth of elongated bending TiO2 -based nanotubular materials for ultrafast rechargeable lithium ion batteries. **2014**, 26, 6111-8		358
2073	Formation of Large Polysulfide Complexes during the Lithium-Sulfur Battery Discharge. **2014**, 2,		89
2072	Miniature horizontal axis wind turbine system for multipurpose application. **2014**, 75, 216-224		18
2071	Preparation and improved electrochemical performance of SiCN□graphene composite derived from poly(silylcarbondiimide) as Li-ion battery anode. **2014**, 2, 4168		30
2070	Lithium Titanate Tailored by Cathodically Induced Graphene for an Ultrafast Lithium Ion Battery. **2014**, 24, 4349-4356		126
2069	Small things make a big difference: binder effects on the performance of Li and Na batteries. **2014**, 16, 20347-59		276
2068	K1□Fe2+/3(CN)6□yH2O, Prussian Blue as a displacement anode for lithium ion batteries. **2014**, 271, 489-496		38
2067	Synthesis of tin nanocrystals in room temperature ionic liquids. **2014**, 43, 18025-34		11
2066	A systematic investigation of polymer binder flexibility on the electrode performance of lithium-ion batteries. **2014**, 6, 17111-8		54
2065	Analysis of Charged State Stability for Monoclinic LiMnBO3 Cathode. **2014**, 26, 4200-4206		23
2064	Self-assembled graphene and LiFePO4 composites with superior high rate capability for lithium ion batteries. **2014**, 2, 4927		61
2063	Graphene-wrapped chromium-MOF(MIL-101)/sulfur composite for performance improvement of high-rate rechargeable Li□ batteries. **2014**, 2, 13509-13512		144
2062	Suppression of lithium dendrite growth using cross-linked polyethylene/poly(ethylene oxide) electrolytes: a new approach for practical lithium-metal polymer batteries. *Journal of the American Chemical Society*, **2014**, 136, 7395-402	16.4	600
2061	Magnesium anode for chloride ion batteries. **2014**, 6, 10997-1000		57

2060	Organosilicon compounds containing nitrile and oligo(ethylene oxide) substituents as safe electrolytes for high-voltage lithium-ion batteries. **2014**, 254, 29-32	25
2059	Glucose-assisted synthesis of Na3V2(PO4)3/C composite as an electrode material for high-performance sodium-ion batteries. **2014**, 265, 325-334	143
2058	Surface coating of lithium□hanganese-rich layered oxides with delaminated MnO2 nanosheets as cathode materials for Li-ion batteries. **2014**, 2, 4422	95
2057	Very High Surface Capacity Observed Using Si Negative Electrodes Embedded in Copper Foam as 3D Current Collectors. **2014**, 4, 1301718	53
2056	Atmosphere Controlled Processing of Ga-Substituted Garnets for High Li-Ion Conductivity Ceramics. **2014**, 26, 3610-3617	218
2055	Materials and structures for stretchable energy storage and conversion devices. **2014**, 26, 3592-617	318
2054	Nano-MoS2/poly (3,4-ethylenedioxythiophene): Poly(styrenesulfonate) composite prepared by a facial dip-coating process for Li-ion battery anode. **2014**, 288, 736-741	32
2053	A High Power Density Dual-electrolyte Lithium-Silver Battery with Celgard□ 2325 Separator. **2014**, 116, 429-433	8
2052	Facile synthesis of Co3O4 mesoporous nanosheets and their lithium storage properties. **2014**, 125, 103-106	13
2051	Controllable growth of TiO2-B nanosheet arrays on carbon nanotubes as a high-rate anode material for lithium-ion batteries. **2014**, 69, 302-310	71
2050	A facile hydrothermal route to iron(III) oxide with conductive additives as composite anode for lithium ion batteries. **2014**, 259, 227-232	32
2049	Surfactant-assisted sol gel preparation of high-surface area mesoporous TiO2 nanocrystalline Li-ion battery anodes. **2014**, 594, 114-121	32
2048	Ethanol-assisted hydrothermal synthesis of LiNi0.5Mn1.5O4 with excellent long-term cyclability at high rate for lithium-ion batteries. **2014**, 2, 4185-4191	80
2047	Suppressed capacity/voltage fading of high-capacity lithium-rich layered materials via the design of heterogeneous distribution in the composition. **2014**, 2, 3899	102
2046	Nitrogen/carbon atomic ratio-dependent performances of nitrogen-doped carbon-coated metal oxide nanocrystals for anodes in lithium-ion batteries. **2014**, 6, 7346-55	22
2045	Directional synthesis of tin oxide@graphene nanocomposites via a one-step up-scalable wet-mechanochemical route for lithium ion batteries. **2014**, 2, 10211-10217	50
2044	Citrate-Assisted Growth of NiCo2O4 Nanosheets on Reduced Graphene Oxide for Highly Reversible Lithium Storage. **2014**, 4, 1400422	209
2043	Porous LiMn2O4 cubes architectured with single-crystalline nanoparticles and exhibiting excellent cyclic stability and rate capability as the cathode of a lithium ion battery. **2014**, 2, 9272	66

2042	Ionic liquids for energy, materials, and medicine. **2014**, 50, 9228-50	396
2041	Recent progress on synchrotron-based in-situ soft X-ray spectroscopy for energy materials. **2014**, 26, 7710-29	108
2040	Polydopamine and its derivative materials: synthesis and promising applications in energy, environmental, and biomedical fields. **2014**, 114, 5057-115	3034
2039	Functional gels based on chemically modified graphenes. **2014**, 26, 3992-4012	248
2038	Rational design of a metal–organic framework host for sulfur storage in fast, long-cycle Li–S batteries. **2014**, 7, 2715	376
2037	Enhanced high temperature cycling performance of LiMn2O4/graphite cells with methylene methanedisulfonate (MMDS) as electrolyte additive and its acting mechanism. **2014**, 23, 383-390	10
2036	Solid electrolytes for fluoride ion batteries: ionic conductivity in polycrystalline tysonite-type fluorides. **2014**, 6, 2103-10	102
2035	Reversible Li+ Storage in a LiMnTiO4 Spinel and Its Structural Transition Mechanisms. **2014**, 118, 12608-12616	33
2034	Low temperature synthesis of Fe2O3 and LiFeO2 as cathode materials for lithium-ion batteries. **2014**, 136, 10-18	26
2033	A ternary phased SnO2-Fe2O3/SWCNTs nanocomposite as a high performance anode material for lithium ion batteries. **2014**, 23, 376-382	12
2032	Electrochemical properties of Li2FeP2O7 cathode material synthesized by using different lithium sources. **2014**, 133, 1-7	21
2031	Recent advances in the Si-based nanocomposite materials as high capacity anode materials for lithium ion batteries. **2014**, 17, 285-297	121
2030	Single-ion-conducting nanocomposite polymer electrolytes based on PEG400 and anionic nanoparticles: Part 1. Synthesis, structure and properties. **2014**, 39, 2872-2883	30
2029	Reinvestigation of the electrochemical lithium intercalation in 2H- and 3R-NbS2. **2014**, 245, 27-32	35
2028	Nanowire Electrodes for Advanced Lithium Batteries. **2014**, 2,	16
2027	Superhalogens as Building Blocks of Halogen-Free Electrolytes in Lithium-Ion Batteries. **2014**, 126, 14136-14139	26
2026	Lithium Dendrite Inhibition on Post-Charge Anode Surface: The Kinetics Role. **2015**, 1774, 31-39	
2025	The energy-storage frontier: Lithium-ion batteries and beyond. **2015**, 40, 1067-1078	113

2024	Overview of Small Scale Electric Energy Storage Systems suitable for dedicated coupling with Renewable Micro Sources. **2015**,	
2023	Unravelling the Role of Electrochemically Active FePO Coating by Atomic Layer Deposition for Increased High-Voltage Stability of LiNiMnO Cathode Material. **2015**, 2, 1500022	89
2022	Reaction temperature sensing (RTS)-based control for Li-ion battery safety. **2015**, 5, 18237	18
2021	Steric Effects on the Cyclability of Benzoquinone-type Organic Cathode Active Materials for Rechargeable Batteries. **2015**, 44, 1726-1728	13
2020	Modeling interfaces between solids: Application to Li battery materials. **2015**, 92,	46
2019	Li-Ion Batteries and Beyond: Future Design Challenges. **2015**, 1-19	
2018	High-capacity Lithium-ion Storage System Using Unilamellar Crystallites of Exfoliated MoO2 Nanosheets. **2015**, 44, 1595-1597	5
2017	A Polymer Lithium-Oxygen Battery. **2015**, 5, 12307	40
2016	Investigation on preparation and performance of spinel LiNi0.5Mn1.5O4 with different microstructures for lithium-ion batteries. **2015**, 5, 13299	38
2015	Electron doping through lithium intercalation to interstitial channels in tetrahedrally bonded SiC. **2015**, 118, 175704	7
2014	Magnetic and microstructural properties of LiCrO2.Cr2O3 system by doping of the boron ions. **2015** , 26, 9178-9184	2
2013	Carbon-Based Materials for Lithium-Ion Batteries, Electrochemical Capacitors, and Their Hybrid Devices. **2015**, 8, 2284-311	181
2012	Hetero-Nanonet Rechargeable Paper Batteries: Toward Ultrahigh Energy Density and Origami Foldability. **2015**, 25, 6029-6040	89
2011	Smart Hybrids of Zn2GeO4 Nanoparticles and Ultrathin g-C3N4 Layers: Synergistic Lithium Storage and Excellent Electrochemical Performance. **2015**, 25, 6858-6866	155
2010	Design Considerations for Unconventional Electrochemical Energy Storage Architectures. **2015**, 5, 1402115	224
2009	Progress in Mechanistic Understanding and Characterization Techniques of Li-S Batteries. **2015**, 5, 1500408	321
2008	Safety-Reinforced Poly(Propylene Carbonate)-Based All-Solid-State Polymer Electrolyte for Ambient-Temperature Solid Polymer Lithium Batteries. **2015**, 5, 1501082	391
2007	Superstructure in the Metastable Intermediate-Phase Li2/3FePO4 Accelerating the Lithium Battery Cathode Reaction. **2015**, 127, 9067-9070	2

2006	High-Capacity NiO@Mesocarbon Microbeads) Conversion Anode for Lithium-Ion Battery. **2015**, 2, 988-994	30
2005	Design and Preparation of a Lithium-rich Layered Oxide Cathode with a Mg-Concentration-Gradient Shell for Improved Rate Capability. **2015**, 2, 1346-1354	15
2004	Facile Synthesis of Porous Silicon Nanofibers by Magnesium Reduction for Application in Lithium Ion Batteries. **2015**, 10, 424	17
2003	New Insights into Improving Rate Performance of Lithium-Rich Cathode Material. **2015**, 27, 3915-20	151
2002	In Situ Formation of Conductive Metal Sulfide Domain in Metal Oxide Matrix: An Efficient Way to Improve the Electrochemical Activity of Semiconducting Metal Oxide. **2015**, 25, 4948-4955	17
2001	An All-Solid-State Flexible Piezoelectric High-k Film Functioning as Both a Generator and In Situ Storage Unit. **2015**, 25, 7029-7037	39
2000	Effects of cell construction parameters on the performance of lithium/sulfur cells. **2015**, 61, 2749-2756	6
1999	Dual Doping: An Effective Method to Enhance the Electrochemical Properties of Li10GeP2S12-Based Solid Electrolytes. **2015**, 98, 3831-3835	25
1998	A rigid naphthalenediimide triangle for organic rechargeable lithium-ion batteries. **2015**, 27, 2907-12	120
1997	Characterizing the Influence of Water on Charging and Layering at Electrified Ionic-Liquid/Solid Interfaces. **2015**, 2, 1500159	80
1996	Alkali-Ion Storage Behaviour in Spinel Lithium Titanate Electrodes. **2015**, 2, 1678-1681	3
1995	Multiphase LiNi0.33Mn0.54Co0.13O2 Cathode Material with High Capacity Retention for Li-Ion Batteries. **2015**, 2, 1957-1965	15
1994	Polymerized Ionic Networks with High Charge Density: Quasi-Solid Electrolytes in Lithium-Metal Batteries. **2015**, 27, 8088-94	92
1993	A Key concept in Magnesium Secondary Battery Electrolytes. **2015**, 8, 3069-76	45
1992	3D Networked Tin Oxide/Graphene Aerogel with a Hierarchically Porous Architecture for High-Rate Performance Sodium-Ion Batteries. **2015**, 8, 2948-55	63
1991	Mechanistic Insight into the Stability of HfO2 -Coated MoS2 Nanosheet Anodes for Sodium Ion Batteries. **2015**, 11, 4341-50	67
1990	Stabilization of Insoluble Discharge Products by Facile Aniline Modification for High Performance Li-S Batteries. **2015**, 5, 1500268	43
1989	Development of Active Organic and Polymeric Materials for Batteries and Solar Cells: Introduction to Essential Characterization Techniques. **2015**, 5, 1500858	13

1988	Formation of Yolk-Shelled NiCo Mixed Oxide Nanoprisms with Enhanced Electrochemical Performance for Hybrid Supercapacitors and Lithium Ion Batteries. **2015**, 5, 1500981	258
1987	Superstructure in the Metastable Intermediate-Phase Li2/3 FePO4 Accelerating the Lithium Battery Cathode Reaction. **2015**, 54, 8939-42	23
1986	Feasibility of Electric Buses in Public Transport. **2015**, 7, 357-365	25
1985	High Temperature Stable Separator for Lithium Batteries Based on SiO and Hydroxypropyl Guar Gum. **2015**, 5, 632-45	23
1984	Size Effect of Ordered Mesoporous Carbon Nanospheres for Anodes in Li-Ion Battery. **2015**, 5, 2348-2358	17
1983	Controlled synthesis of LiNi0.5Mn1.5O4 cathode materials with superior electrochemical performance through urea-based solution combustion synthesis. **2015**, 5, 49831-49837	10
1982	Rational Design and Facial Synthesis of Li3V2(PO4)3@C Nanocomposites Using Carbon with Different Dimensions for Ultrahigh-Rate Lithium-Ion Batteries. **2015**, 7, 12057-66	44
1981	Microporous polymer electrolyte based on PVDF/PEO star polymer blends for lithium ion batteries. **2015**, 491, 82-89	134
1980	Facile preparation of core@shell and concentration-gradient spinel particles for Li-ion battery cathode materials. **2015**, 16, 015006	7
1979	Improved capacity and stability of integrated Li and Mn rich layered-spinel Li1.17Ni0.25Mn1.08O3 cathodes for Li-ion batteries. **2015**, 3, 14598-14608	28
1978	A novel sp3Al-based porous single-ion polymer electrolyte for lithium ion batteries. **2015**, 5, 32343-32349	7
1977	A tetradentate Ni(II) complex cation as a single redox couple for non-aqueous flow batteries. **2015**, 283, 300-304	33
1976	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
1975	Polycrystalline zinc stannate as an anode material for sodium-ion batteries. **2015**, 3, 14033-14038	44
1974	Silica nanoparticles densely grafted with PEO for ionomer plasticization. **2015**, 5, 19570-19580	8
1973	Development of Pyridine-Boron Trifluoride Electrolyte Additives for Lithium-Ion Batteries. **2015**, 162, A1186-A1195	45
1972	High-performance electrospun nanostructured composite fiber anodes for lithium on batteries. **2015**, 662-689	1
1971	Flexible carbon nanostructures with electrospun nickel oxide as a lithium-ion battery anode. **2015**, 21, 2755-2762	14

1970	Room Temperature Ionic Liquid-based Electrolytes as an Alternative to Carbonate-based Electrolytes. **2015**, 55, 586-598	35
1969	Synthesis and characterization of lithium-salt complexes with difluoroalkoxyborates for application as lithium electrolytes. **2015**, 175, 104-112	2
1968	In-situ synthesis of reduced graphene oxide modified lithium vanadium phosphate for high-rate lithium-ion batteries via microwave irradiation. **2015**, 174, 26-32	22
1967	Sonochemical synthesis of LiNi0.5Mn1.5O4 and its electrochemical performance as a cathode material for 5 V Li-ion batteries. **2015**, 26, 332-339	18
1966	Morphological Influence in Lithium-Ion Battery 3D Electrode Architectures. **2015**, 162, A991-A1002	14
1965	Fe3O4/carbon nanofibres with necklace architecture for enhanced electrochemical energy storage. **2015**, 3, 14245-14253	77
1964	Binding energy referencing for XPS in alkali metal-based battery materials research (I): Basic model investigations. **2015**, 351, 492-503	47
1963	Understanding the electrochemical superiority of 0.6Li[Li1/3Mn2/3]O2-0.4Li[Ni1/3Co1/3Mn1/3]O2 nanofibers as cathode material for lithium ion batteries. **2015**, 173, 672-679	16
1962	High-voltage performance of LiNi1/3Co1/3Mn1/3O2/graphite batteries with di(methylsulfonyl) methane as a new sulfone-based electrolyte additive. **2015**, 293, 196-202	39
1961	Preparation of high performance lithium-ion batteries with a separator□athode assembly. **2015**, 5, 34184-34190	16
1960	Chemical modification approaches for improved performance of Na-ion battery electrodes. **2015**,	
1959	Mixed ionic liquid/organic carbonate electrolytes for LiNi0.8Co0.15Al0.05O2 electrodes at various temperatures. **2015**, 5, 106824-106831	7
1958	Phase-Controlled Electrochemical Activity of Epitaxial Mg-Spinel Thin Films. **2015**, 7, 28438-43	50
1957	Direct Evidence of a Chemical Conversion Mechanism of Atomic-Layer-Deposited TiO2 Anodes During Lithiation Using LiPF6 Salt. **2015**, 119, 28285-28291	10
1956	A Versatile Coating Strategy to Highly Improve the Electrochemical Properties of Layered Oxide LiMO□(M = Ni0.5Mn0.5 and Ni1/3Mn1/3Co1/3). **2015**, 7, 27096-105	41
1955	A universal self-charging system driven by random biomechanical energy for sustainable operation of mobile electronics. **2015**, 6, 8975	423
1954	Interconnected mesoporous NiO sheets deposited onto TiO2 nanosheet arrays as binder-free anode materials with enhanced performance for lithium ion batteries. **2015**, 5, 101247-101256	13
1953	Synthesis and performance of hollow LiNi0.5Mn1.5O4 with different particle sizes for lithium-ion batteries. **2015**, 5, 100730-100735	10

1952	Electrospun porous CuCo2O4 nanowire network electrode for asymmetric supercapacitors. **2015**, 5, 96448-96454		60
1951	Lithium–antimony alloys: Phase diagram, thermodynamic properties, electrochemical behavior in molten and nonaqueous electrolytes, and use in lithium-ion batteries. **2015**, 88, 1737-1749		10
1950	Influence of a carbon coating on the electrochemical properties of lithium-titanate-based nanosized materials. **2015**, 10, 865-871		10
1949	Mg2Al3, a complex and disordered intermetallic compound as anode material for metal-air batteries. **2015**, 19, 685-695		7
1948	Electrochemical oxidation stability of anions for modern battery electrolytes: a CBS and DFT study. **2015**, 17, 3697-703		27
1947	Naphthyridine Derivatives as a Model System for Potential Lithium–Sulfur Energy-Storage Applications. **2015**, 2015, 933-937		8
1946	Phase Behavior and Electrochemical Characterization of Blends of Perfluoropolyether, Poly(ethylene glycol), and a Lithium Salt. **2015**, 27, 597-603		45
1945	Bismuth oxyiodide nanosheets: a novel high-energy anode material for lithium-ion batteries. **2015**, 51, 2798-801		41
1944	A mesoporous catalytic membrane architecture for lithium-oxygen battery systems. **2015**, 15, 434-41		66
1943	Enhanced Lithium Storage Performance of CuO Nanowires by Coating of Graphene Quantum Dots. **2015**, 2, 1400499		80
1942	Fabrication of hierarchical structured SiO 2 /polyetherimide-polyurethane nanofibrous separators with high performance for lithium ion batteries. **2015**, 154, 219-226		102
1941	Facile synthesis of uniform MWCNT@Si nanocomposites as high-performance anode materials for lithium-ion batteries. **2015**, 622, 966-972		51
1940	Importance of nanostructure for reversible Li-insertion into octahedral sites of LiNi0.5Mn1.5O4 and its application towards aqueous Li-ion chemistry. **2015**, 280, 240-245		14
1939	Facile Synthesis of Ultrasmall CoS2 Nanoparticles within Thin N-Doped Porous Carbon Shell for High Performance Lithium-Ion Batteries. **2015**, 11, 2511-7		285
1938	Model-Based Prediction of Composition of an Unknown Blended Lithium-Ion Battery Cathode. **2015**, 162, A716-A721		17
1937	First-Principles Study of Redox End Members in Lithium–Sulfur Batteries. **2015**, 119, 4675-4683		53
1936	Micro-nano structure Na2MnPO4F/C as cathode material with excellent sodium storage properties. **2015**, 145, 269-272		27
1935	Side-chain conducting and phase-separated polymeric binders for high-performance silicon anodes in lithium-ion batteries. *Journal of the American Chemical Society*, **2015**, 137, 2565-71	16.4	166

1934	Future generations of cathode materials: an automotive industry perspective. **2015**, 3, 6709-6732		538
1933	Atomic-scale structure evolution in a quasi-equilibrated electrochemical process of electrode materials for rechargeable batteries. **2015**, 27, 2134-49		56
1932	Si/Ag composite with bimodal micro-nano porous structure as a high-performance anode for Li-ion batteries. **2015**, 7, 5320-7		72
1931	Sphere-shaped hierarchical cathode with enhanced growth of nanocrystal planes for high-rate and cycling-stable li-ion batteries. **2015**, 15, 656-61		98
1930	Recent achievements on inorganic electrode materials for lithium-ion batteries. *Journal of the American Chemical Society*, **2015**, 137, 3140-56	16.4	400
1929	An Ion-Exchange Promoted Phase Transition in a Li-Excess Layered Cathode Material for High-Performance Lithium Ion Batteries. **2015**, 5, 1401937		63
1928	Construction of Co3O4 nanotubes as high-performance anode material for lithium ion batteries. **2015**, 160, 15-21		103
1927	Operando soft x-ray emission spectroscopy of LiMn2O4 thin film involving Li□n extraction/insertion reaction. **2015**, 50, 93-96		24
1926	Flexible one-dimensional carbon□selenium composite nanofibers with superior electrochemical performance for Li□e/Na□e batteries. **2015**, 281, 461-469		99
1925	High-performance sodium ion batteries based on a 3D anode from nitrogen-doped graphene foams. **2015**, 27, 2042-8		695
1924	Dual-Porosity SiO2/C Nanocomposite with Enhanced Lithium Storage Performance. **2015**, 119, 3495-3501		87
1923	A catalytic path for electrolyte reduction in lithium-ion cells revealed by in situ attenuated total reflection-Fourier transform infrared spectroscopy. *Journal of the American Chemical Society*, **2015**, 137, 3181-4	16.4	58
1922	Li ion dynamics along the inner surfaces of layer-structured 2H-LixNbS2. **2015**, 7, 4089-99		19
1921	Size-Tunable Single-Crystalline Anatase TiO2 Cubes as Anode Materials for Lithium Ion Batteries. **2015**, 119, 3923-3930		45
1920	Growth of Ultrathin ZnCoO Nanosheets on Reduced Graphene Oxide with Enhanced Lithium Storage Properties. **2015**, 2, 1400014		138
1919	Pyrite FeS2 for high-rate and long-life rechargeable sodium batteries. **2015**, 8, 1309-1316		545
1918	An investigation into LiFePO4/C electrode by medium scan rate cyclic voltammetry. **2015**, 45, 225-233		9
1917	A fundamental study on the [(□Cl)3Mg2(THF)6]+ dimer electrolytes for rechargeable Mg batteries. **2015**, 51, 2312-5		40

1916	Understanding the Effect of Lithium Bis(oxalato) Borate (LiBOB) on the Structural and Electrochemical Aging of Li and Mn Rich High Capacity Li1.2Ni0.16Mn0.56Co0.08O2Cathodes. **2015**, 162, A596-A602	37
1915	The Effect of Antisite Disorder and Particle Size on Li Intercalation Kinetics in Monoclinic LiMnBO3. **2015**, 5, 1401916	24
1914	Electrochemical performance of □MoO3□h2O3 core□shell nanorods as anode materials for lithium-ion batteries. **2015**, 3, 5083-5091	76
1913	Sub-3 nm Co3O4 nanofilms with enhanced supercapacitor properties. **2015**, 9, 1730-9	222
1912	Localized polyselenides in a graphene-coated polymer separator for high rate and ultralong life lithium-selenium batteries. **2015**, 51, 3667-70	56
1911	Fibrous cellulose membrane mass produced via forcespinning□ for lithium-ion battery separators. **2015**, 22, 1311-1320	81
1910	Controlled ionic conductivity via tapered block polymer electrolytes. **2015**, 5, 12597-12604	53
1909	Olivine LiFePO4: the remaining challenges for future energy storage. **2015**, 8, 1110-1138	323
1908	Superior sodium□thium intercalation and depressed moisture sensitivity of a hierarchical sandwich-type nanostructure for a graphene□ulfate composite: a case study on Na2Fe(SO4)2□2H2O. **2015**, 3, 4484-4492	48
1907	Graphene-encapsulated Li2MnTi3O8 nanoparticles as a high rate anode material for lithium-ion batteries. **2015**, 155, 272-278	23
1906	(7)Li in situ 1D NMR imaging of a lithium ion battery. **2015**, 17, 4458-65	49
1905	Electrochemical and structural effects of in situ Li2O extraction from Li2MnO3 for Li-Ion batteries. **2015**, 7, 2433-8	24
1904	Surface capacitive contributions: Towards high rate anode materials for sodium ion batteries. **2015**, 12, 224-230	301
1903	Recent progress in theoretical and computational investigations of Li-ion battery materials and electrolytes. **2015**, 17, 4799-844	190
1902	Interfacial oxygen stabilizes composite silicon anodes. **2015**, 15, 703-8	45
1901	Electrochemical performance of rod-like Sb□ composite as anodes for Li-ion and Na-ion batteries. **2015**, 3, 3276-3280	82
1900	High yield fabrication of hollow vesica-like silicon based on the Kirkendall effect and its application to energy storage. **2015**, 7, 3440-4	44
1899	Hierarchical zigzag Na1.25V3O8 nanowires with topotactically encoded superior performance for sodium-ion battery cathodes. **2015**, 8, 1267-1275	141

1898	Sodium storage and transport properties in pyrolysis synthesized MoSe 2 nanoplates for high performance sodium-ion batteries. **2015**, 283, 187-194	136
1897	Li3PO4-doped Li7P3S11 glass-ceramic electrolytes with enhanced lithium ion conductivities and application in all-solid-state batteries. **2015**, 284, 206-211	80
1896	Na3V2O2x(PO4)2F32−2x: a stable and high-voltage cathode material for aqueous sodium-ion batteries with high energy density. **2015**, 3, 6271-6275	88
1895	Effect of Fe in suppressing the discharge voltage decay of high capacity Li-rich cathodes for Li-ion batteries. **2015**, 19, 2781-2792	57
1894	In3Se4 and S-doped In3Se4 nano/micro-structures as new anode materials for Li-ion batteries. **2015** , 3, 7560-7567	11
1893	Role of Cu in MoS2 and Cu mixture cathodes for magnesium ion batteries. **2015**, 7, 7016-24	43
1892	A review on integrating nano-carbons into polyanion phosphates and silicates for rechargeable lithium batteries. **2015**, 92, 15-25	64
1891	Enhanced electrochemical performance of LiMn2O4 cathode with a Li0.34La0.51TiO3-coated layer. **2015**, 5, 17592-17600	11
1890	Dinitrile compound containing ethylene oxide moiety with enhanced solubility of lithium salts as electrolyte solvent for high-voltage lithium-ion batteries. **2015**, 21, 909-915	7
1889	Surfactant-assisted crystallization of porous Mn2O3 anode materials for Li-ion batteries. **2015**, 17, 5094-5100	18
1888	Effects of V2O5 nanowires on the performances of Li2MnSiO4 as a cathode material for lithium-ion batteries. **2015**, 5, 50316-50323	2
1887	Beamline P02.1 at PETRA III for high-resolution and high-energy powder diffraction. **2015**, 22, 675-87	114
1886	Enhancement of electrochemical performance of LiNi1/3Co1/3Mn1/3O2 by surface modification with MnO2. **2015**, 651, 12-18	23
1885	Energy-savvy solid-state and sonochemical synthesis of lithium sodium titanate as an anode active material for Li-ion batteries. **2015**, 296, 276-281	29
1884	SnSe/carbon nanocomposite synthesized by high energy ball milling as an anode material for sodium-ion and lithium-ion batteries. **2015**, 176, 1296-1301	79
1883	Investigation of the structure and ionic conductivity of intercalated kaolinites with potassium acetate in hydrous and anhydrous phases. **2015**, 44, 4665-70	7
1882	From graphite to porous graphene-like nanosheets for high rate lithium-ion batteries. **2015**, 8, 2998-3010	64
1881	A plum-pudding like mesoporous SiO2/flake graphite nanocomposite with superior rate performance for LIB anode materials. **2015**, 17, 22893-9	17

1880 Synthesis of high-capacity LiNi 0.8 Co 0.1 Mn 0.1 O 2 cathode by transition metal acetates. **2015**, 25, 1568-157423

1879 Enhanced high voltage performances of layered lithium nickel cobalt manganese oxide cathode by using trimethylboroxine as electrolyte additive. **2015**, 176, 919-925 40

1878 A shortcut to garnet-type fast Li-ion conductors for all-solid state batteries. **2015**, 3, 18636-18648 89

1877 Best Practices for Reporting on Energy Storage. **2015**, 7, 16131-2 2

1876 Bottom-up synthesis of high-performance nitrogen-enriched transition metal/graphene oxygen reduction electrocatalysts both in alkaline and acidic solution. **2015**, 7, 14707-14 26

1875 SiOx□ dual-phase glass for lithium ion battery anode with high capacity and stable cycling performance. **2015**, 274, 542-550 66

1874 Graphitic carbon anode temperature excursions reflect crystallographic phase transitions in lithium-ion cells. **2015**, 293, 876-882 8

1873 Copper Phosphate as a Cathode Material for Rechargeable Li Batteries and Its Electrochemical Reaction Mechanism. **2015**, 27, 5736-5744 23

1872 Bunched akaganeite nanorod arrays: Preparation and high-performance for flexible lithium-ion batteries. **2015**, 296, 237-244 31

1871 Hybrid system for rechargeable magnesium battery with high energy density. **2015**, 5, 11931 42

1870 MoS2 architectures supported on graphene foam/carbon nanotube hybrid films: highly integrated frameworks with ideal contact for superior lithium storage. **2015**, 3, 17534-17543 47

1869 A Simple Synthesis of Two-Dimensional Ultrathin Nickel Cobaltite Nanosheets for Electrochemical Lithium Storage. **2015**, 176, 141-148 45

1868 Uniformly dispersed silicon nanoparticle/carbon nanosphere composites as highly stable lithium-ion battery electrodes. **2015**, 5, 17424-17428 12

1867 Carbon nanotube@layered nickel silicate coaxial nanocables as excellent anode materials for lithium and sodium storage. **2015**, 3, 16551-16559 49

1866 Lithium metal borate (LiMBO3) family of insertion materials for Li-ion batteries: a sneak peak. **2015**, 21, 1801-1812 25

1865 Structural manipulation approaches towards enhanced sodium ionic conductivity in Na-rich antiperovskites. **2015**, 293, 735-740 69

1864 Ionic liquid based lithium battery electrolytes: fundamental benefits of utilising both TFSI and FSI anions?. **2015**, 17, 19569-81 117

1863 High-rate, high-density FeSb□TiC□ nanocomposite anodes for lithium-ion batteries. **2015**, 3, 3891-3900 23

1862	Altering the structural properties of A2B12H12 compounds via cation and anion modifications. **2015**, 645, S200-S204	23
1861	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
1860	Designing an advanced P2-Na0.67Mn0.65Ni0.2Co0.15O2 layered cathode material for Na-ion batteries. **2015**, 3, 16272-16278	88
1859	Hierarchical composites of ultrathin carbon self-coated TiO2 nanosheets on reduced graphene oxide with enhanced lithium storage capability. **2015**, 280, 614-622	25
1858	Optimization of Block Copolymer Electrolytes for Lithium Metal Batteries. **2015**, 27, 4682-4692	93
1857	Roll-to-Roll Nanomanufacturing of Hybrid Nanostructures for Energy Storage Device Design. **2015**, 7, 14201-10	26
1856	A comparative study of ordered mesoporous carbons with different pore structures as anode materials for lithium-ion batteries. **2015**, 5, 42922-42930	63
1855	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
1854	Porous Ni0.14Mn0.86O1.43 hollow microspheres as high-performing anodes for lithium-ion batteries. **2015**, 291, 156-162	28
1853	Ceramic separators based on Li+-conducting inorganic electrolyte for high-performance lithium-ion batteries with enhanced safety. **2015**, 293, 675-683	71
1852	Stable Interface Formation between TiS2 and LiBH4 in Bulk-Type All-Solid-State Lithium Batteries. **2015**, 27, 5407-5416	85
1851	Preparation and electrochemical performance of ZrO2 nanoparticle-embedded nonwoven composite separator for lithium-ion batteries. **2015**, 41, 14223-14229	32
1850	Molten salt electrochemical synthesis of sodium titanates as high performance anode materials for sodium ion batteries. **2015**, 3, 16495-16500	26
1849	Heterogeneous intergrowth xLi1.5Ni0.25Mn0.75O2.5·(1 - x)Li0.5Ni0.25Mn0.75O2 (0 ≤ x ≤ 1) composites: synergistic effect on electrochemical performance. **2015**, 44, 14255-64	9
1848	Lithium-silicon alloys: Phase diagram, electrochemical studies, thermodynamic properties, application in chemical power cells. **2015**, 88, 547-566	9
1847	Copper oxide supported on platinum nanosheets array: High performance carbon-free cathode for lithium–oxygen cells. **2015**, 294, 377-385	16
1846	Binary Additive Blends Including Pyridine Boron Trifluoride for Li-Ion Cells. **2015**, 162, A1693-A1701	19
1845	How to synthesize pure Li2-xFeSi1-xPxO4/C (x = 0.03-0.15) easily from low-cost Fe(3+) as cathode materials for Li-ion batteries. **2015**, 44, 14805-12	5

1844	Polypyrrole-assisted synthesis of roselike MoS2/nitrogen-containing carbon/graphene hybrids and their robust lithium storage performances. **2015**, 5, 62624-62629	12
1843	Microscale characterization of coupled degradation mechanism of graded materials in lithium batteries of electric vehicles. **2015**, 50, 1445-1461	16
1842	Recent advances in MXene: Preparation, properties, and applications. **2015**, 10, 276-286	520
1841	Improvement of the Cycling Performance and Thermal Stability of Lithium-Ion Cells by Double-Layer Coating of Cathode Materials with Al□O□Nanoparticles and Conductive Polymer. **2015**, 7, 13944-51	117
1840	Construction of spongy antimony-doped tin oxide/graphene nanocomposites using commercially available products and its excellent electrochemical performance. **2015**, 294, 223-231	16
1839	Investigation of the activity and stability of Pd-based catalysts towards the oxygen reduction (ORR) and evolution reactions (OER) in iron□ir batteries. **2015**, 5, 25424-25427	32
1838	A general strategy to construct uniform carbon-coated spinel LiMn2O4 nanowires for ultrafast rechargeable lithium-ion batteries with a long cycle life. **2015**, 7, 13173-80	27
1837	Hazard Characterizations of Li-Ion Batteries: Thermal Runaway Evaluation by Calorimetry Methodology. **2015**, 419-454	3
1836	Facile synthesis and enhanced electrochemical performances of Li2TiO3-coated lithium-rich layered Li1.13Ni0.30Mn0.57O2 cathode materials for lithium-ion batteries. **2015**, 294, 141-149	75
1835	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
1834	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
1833	Single-ion dominantly conducting polyborates towards high performance electrolytes in lithium batteries. **2015**, 3, 7773-7779	50
1832	The low and high temperature electrochemical performance of Li3VO4/C anode material for Li-ion batteries. **2015**, 745, 1-7	31
1831	Investigation on performance of Li(Ni0.5Co0.2Mn0.3)1□TixO2 cathode materials for lithium-ion battery. **2015**, 41, 9069-9077	45
1830	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
1829	Natural abundance 17O nuclear magnetic resonance and computational modeling studies of lithium based liquid electrolytes. **2015**, 285, 146-155	24
1828	Lithium Peroxide-Carbon Composite Cathode for Closed System Li-O2Batteries. **2015**, 162, A1327-A1333	9
1827	Low temperature electrochemical performance of □Li V2O5 cathode for lithium-ion batteries. **2015**, 169, 440-446	23

1826	Semiconductor nanowire battery electrodes. **2015**, 441-469		1
1825	Chitosan-assisted fabrication of ultrathin MoS2/graphene heterostructures for Li-ion battery with excellent electrochemical performance. **2015**, 167, 39-47		41
1824	Carbonate Free Electrolyte for Lithium Ion Batteries Containing Butyrolactone and Methyl Butyrate. **2015**, 162, A928-A934		25
1823	Large-scale virtual high-throughput screening for the identification of new battery electrolyte solvents: computing infrastructure and collective properties. **2015**, 17, 3394-401		50
1822	One-step synthesis of carbon-coated Li4Ti4.95Nd0.05O12 by modified citric acid sol gel method for lithium-ion battery. **2015**, 75, 38-44		7
1821	XRD, impedance, and Mssbauer spectroscopy study of the Li3Fe2(PO4)3 + Fe2O3 composite for Li ion batteries. **2015**, 21, 2127-2136		6
1820	Research Progress on Negative Electrodes for Practical Li-Ion Batteries: Beyond Carbonaceous Anodes. **2015**, 5, 1402225		361
1819	Hollow Co3O4 microspheres with nano-sized shells: one-step large-scale synthesis, growth mechanism and supercapacitor properties. **2015**, 5, 42055-42062		14
1818	A Porous TiO2Electrode Prepared by an Energy Efficient Pyro-Synthesis for Advanced Lithium-Ion Batteries. **2015**, 162, A1220-A1226		14
1817	Intricate short-range ordering and strongly anisotropic transport properties of Li(1-x)Sn(2+x)As *Journal of the American Chemical Society*, **2015**, 137, 3622-30	16.4	30
1816	Honeycomb-like Macro-Germanium as High-Capacity Anodes for Lithium-Ion Batteries with Good Cycling and Rate Performance. **2015**, 27, 4156-4164		61
1815	Flexible Ion-Conducting Composite Membranes for Lithium Batteries. **2015**, 5, 1500265		97
1814	Theoretical capacity achieved in a LiMn0.5Fe0.4Mg0.1BO3 cathode by using topological disorder. **2015**, 8, 1790-1798		27
1813	Coordination Site Disorder in Spinel-Type LiMnTiO4. **2015**, 54, 4636-43		12
1812	Theoretical Study of the Structural Evolution of a Na2FeMn(CN)6 Cathode upon Na Intercalation. **2015**, 27, 3763-3768		68
1811	Hydrated vanadium pentoxide with superior sodium storage capacity. **2015**, 3, 8070-8075		146
1810	Understanding the Anchoring Effect of Two-Dimensional Layered Materials for Lithium-Sulfur Batteries. **2015**, 15, 3780-6		636
1809	Role of Cr3+/Cr6+ redox in chromium-substituted Li2MnO3LiNi1/2Mn1/2O2 layered composite cathodes: electrochemistry and voltage fade. **2015**, 3, 9915-9924		29

1808	Hydrothermal-Assisted Synthesis of Li-Rich Layered Oxide Microspheres with High Capacity and Superior Rate-capability as a Cathode for Lithium-ion Batteries. **2015**, 173, 7-16	51
1807	A Na/MnO2Primary Cell Employing Poorly Crystalline MnO2. **2015**, 162, A839-A844	4
1806	The structure control of ZnS/graphene composites and their excellent properties for lithium-ion batteries. **2015**, 3, 13384-13389	128
1805	Electrochemical Performance of a Layered-Spinel Integrated Li[Ni1/3Mn2/3]O2 as a High Capacity Cathode Material for Li-Ion Batteries. **2015**, 27, 2600-2611	44
1804	The Optimized Tin Dioxide-Carbon Nanocomposites as High-performance Anode for Lithium ion Battery with a long cycle life. **2015**, 167, 69-74	13
1803	High capacity group-15 alloy anodes for Na-ion batteries: Electrochemical and mechanical insights. **2015**, 285, 29-36	61
1802	Controlled synthesis of high-performance □FeOOH anodes for lithium-ion batteries and their size effects. **2015**, 13, 397-404	38
1801	An Amorphous Carbon Nitride Composite Derived from ZIF-8 as Anode Material for Sodium-Ion Batteries. **2015**, 8, 1856-61	76
1800	Coaxial Zn2GeO4@carbon nanowires directly grown on Cu foils as high-performance anodes for lithium ion batteries. **2015**, 17, 5109-14	35
1799	Poly(dimethylsiloxane) hybrid gel polymer electrolytes of a porous structure for lithium ion battery. **2015**, 489, 36-42	49
1798	Porous tremella-like MoS2/polyaniline hybrid composite with enhanced performance for lithium-ion battery anodes. **2015**, 167, 132-138	62
1797	Free-standing graphene-based porous carbon films with three-dimensional hierarchical architecture for advanced flexible Li□ulfur batteries. **2015**, 3, 9438-9445	46
1796	Heat generation rate measurement in a Li-ion cell at large C-rates through temperature and heat flux measurements. **2015**, 285, 266-273	105
1795	Anatase TiO2 nanocubes for fast and durable sodium ion battery anodes. **2015**, 3, 8800-8807	139
1794	A study of a novel Na ion battery and its anodic degradation using sodium rich prussian blue cathode coupled with different titanium based oxide anodes. **2015**, 286, 276-289	17
1793	A multilayered silicon-reduced graphene oxide electrode for high performance lithium-ion batteries. **2015**, 7, 7855-62	68
1792	Phase Transition Mechanism and Electrochemical Properties of Nanocrystalline MoSe2 as Anode Materials for the High Performance Lithium-Ion Battery. **2015**, 119, 10197-10205	108
1791	Controlled synthesis and enhanced electrochemical performance of Prussian blue analogue-derived hollow FeCo2O4 nanospheres as lithium-ion battery anodes. **2015**, 5, 36575-36581	42

1790	High energy density Li-ion capacitor assembled with all graphene-based electrodes. **2015**, 92, 106-118	136
1789	Two-dimensional ultrathin ZnCo2O4 nanosheets: general formation and lithium storage application. **2015**, 3, 9556-9564	152
1788	Ni/Mn ratio and morphology-dependent crystallographic facet structure and electrochemical properties of the high-voltage spinel LiNi0.5Mn1.5O4 cathode material. **2015**, 5, 25988-25997	31
1787	Rational material design for ultrafast rechargeable lithium-ion batteries. **2015**, 44, 5926-40	716
1786	High-Capacity, High-Rate Bi–Sb Alloy Anodes for Lithium-Ion and Sodium-Ion Batteries. **2015**, 27, 3096-3101	221
1785	Enhanced electrochemical performance of Li3V2(PO4)3 microspheres assembled with nanoparticles embedded in a carbon matrix. **2015**, 5, 31410-31414	8
1784	Anodes for Rechargeable Lithium-Sulfur Batteries. **2015**, 5, 1402273	362
1783	Electron Spectroscopy Study of Li[Ni,Co,Mn]O2/Electrolyte Interface: Electronic Structure, Interface Composition, and Device Implications. **2015**, 27, 2875-2887	106
1782	Hierarchical electrode design of high-capacity alloy nanomaterials for lithium-ion batteries. **2015**, 10, 193-212	76
1781	Graphene for Flexible Lithium-Ion Batteries: Development and Prospects. **2015**, 119-177	2
1780	Facile Preparation of Graphene/SnO Xerogel Hybrids as the Anode Material in Li-Ion Batteries. **2015**, 7, 27087-95	30
1779	Reaction mechanism and influence of the experimental variables for solvothermal synthesized LiMnPO4 nanoplates. **2015**, 300, 139-146	15
1778	Heat transfer enhancement in a lithium-ion cell through improved material-level thermal transport. **2015**, 300, 123-131	49
1777	In Situ Analysis of Gas Generation in Lithium-Ion Batteries with Different Carbonate-Based Electrolytes. **2015**, 7, 22751-5	52
1776	Solution combustion synthesis of metal oxide nanomaterials for energy storage and conversion. **2015**, 7, 17590-610	259
1775	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
1774	All solid state lithium batteries based on lamellar garnet-type ceramic electrolytes. **2015**, 300, 24-28	161
1773	Spatial Distributions of Discharged Products of Lithium-Oxygen Batteries Revealed by Synchrotron X-ray Transmission Microscopy. **2015**, 15, 6932-8	52

1772	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
1771	Self-template processed hierarchical V2O5 nanobelts as cathode for high performance lithium ion battery. **2015**, 182, 621-628	24
1770	Remarkable electrochemical lithium storage behaviour of two-dimensional ultrathin □Ni(OH)2 nanosheets. **2015**, 5, 83757-83763	23
1769	Beyond Li-ion: electrode materials for sodium- and magnesium-ion batteries. **2015**, 58, 715-766	203
1768	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
1767	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
1766	Probing electrode/electrolyte interfaces in situ by X-ray spectroscopies: old methods, new tricks. **2015**, 17, 30229-39	68
1765	Coupling In Situ TEM and Ex Situ Analysis to Understand Heterogeneous Sodiation of Antimony. **2015**, 15, 6339-48	80
1764	Effects of temperature variation on Li x FePO4/C (0. **2015**, 22, 2043-2051	
1763	Yolk-shell silicon-mesoporous carbon anode with compact solid electrolyte interphase film for superior lithium-ion batteries. **2015**, 18, 133-142	197
1762	A Highly Reversible Room-Temperature Sodium Metal Anode. **2015**, 1, 449-55	516
1761	Influence of surface modification on electrochemical performance of high voltage spinel ordered-LiNi0.5Mn1.5O4 exposed to 5.3 V for 100 h before and after surface modification with ALD method. **2015**, 184, 134-142	21
1760	Uniform yolk-shell iron sulfide-carbon nanospheres for superior sodium-iron sulfide batteries. **2015**, 6, 8689	322
1759	Yolk/shell nanoparticles: classifications, synthesis, properties, and applications. **2015**, 7, 19789-873	214
1758	Constructing aligned □Fe2O3 nanorods with internal void space anchored on reduced graphene oxide nanosheets for excellent lithium storage. **2015**, 5, 91574-91580	19
1757	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
1756	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
1755	Chemically Integrated Multiwalled Carbon Nanotubes/Zinc Manganate Nanocrystals as Ultralong-Life Anode Materials for Lithium-Ion Batteries. **2015**, 3, 2170-2177	30

1754	A chemistry and material perspective on lithium redox flow batteries towards high-density electrical energy storage. **2015**, 44, 7968-96	322
1753	Room-Temperature Molten Salts: Protic Ionic Liquids and Deep Eutectic Solvents as Media for Electrochemical Application. **2015**, 217-252	5
1752	Hollow silica-copper-carbon anodes using copper metal-organic frameworks as skeletons. **2015**, 7, 20426-34	36
1751	ReviewThe Importance of Chemical Interactions between Sulfur Host Materials and Lithium Polysulfides for Advanced Lithium-Sulfur Batteries. **2015**, 162, A2567-A2576	263
1750	Heterogeneous Nanostructures for Sodium Ion Batteries and Supercapacitors. **2015**, 1, 458-476	25
1749	Porous ZnMn2O4 nanowires as an advanced anode material for lithium ion battery. **2015**, 182, 1140-1144	39
1748	ReviewAdvanced Carbon-Supported Organic Electrode Materials for Lithium (Sodium)-Ion Batteries. **2015**, 162, A2393-A2405	99
1747	Facile preparation and performance of hierarchical self-assembly MnCo2O4 nanoflakes as anode active material for lithium ion batteries. **2015**, 180, 866-872	37
1746	High capacity tinIron oxide-carbon nanostructured anode for advanced lithium ion battery. **2015**, 299, 611-616	23
1745	Characterization of Sputter-Deposited LiZr2(PO4)3Thin Film Solid Electrolyte. **2015**, 162, A2080-A2084	3
1744	High-performance lithium storage of Co3O4 achieved by constructing porous nanotube structure. **2015**, 182, 507-515	28
1743	The effect of binders on the rheological properties and the microstructure formation of lithium-ion battery anode slurries. **2015**, 299, 221-230	73
1742	Truncated octahedral LiNi0.5Mn1.5O4 cathode material for ultralong-life lithium-ion battery: Positive (100) surfaces in high-voltage spinel system. **2015**, 300, 430-437	49
1741	Structural and electrochemical properties of Mg-doped nickel based cathode materials LiNi0.6Co0.2Mn0.2MgxO2 for lithium ion batteries. **2015**, 5, 88773-88779	39
1740	A Comparative Study of Pyridine-Boron Trifluoride, Pyrazine-(BF3)2and Triazine-(BF3)3as Electrolyte Additives for Lithium-Ion Cells. **2015**, 162, A2066-A2074	18
1739	Self-assembled CoS2 nanoparticles wrapped by CoS2-quantum-dots-anchored graphene nanosheets as superior-capability anode for lithium-ion batteries. **2015**, 182, 424-429	111
1738	Vacancies in Si Can Improve the Concentration-Dependent Lithiation Rate: Molecular Dynamics Studies of Lithiation Dynamics of Si Electrodes. **2015**, 119, 24265-24275	13
1737	Unveiling the Fabrication of Rocking-ChairType 3.2 and 1.2 V Class Cells Using Spinel LiNi0.5Mn1.5O4 as Cathode with Li4Ti5O12. **2015**, 119, 24332-24336	10

1736	Rechargeable Batteries: Grasping for the Limits of Chemistry. **2015**, 162, A2468-A2475	179
1735	Characterization of thin films of the solid electrolyte Li(x)Mg(1-2x)Al(2+x)O4 (x = 0, 0.05, 0.15, 0.25). **2015**, 17, 29045-56	5
1734	Facile synthesis of high performance hard carbon anode materials for sodium ion batteries. **2015**, 3, 20560-20566	264
1733	In situ preparation of cobalt doped ZnO@C/CNT composites by the pyrolysis of a cobalt doped MOF for high performance lithium ion batteries. **2015**, 5, 75653-75658	18
1732	Electromagnetic effects model and design of energy systems for lithium batteries with gradient structure in sustainable energy electric vehicles. **2015**, 52, 842-851	12
1731	Accommodating lithium into 3D current collectors with a submicron skeleton towards long-life lithium metal anodes. **2015**, 6, 8058	1030
1730	Complexation dynamics of CH3SCN and Li(+) in acetonitrile studied by two-dimensional infrared spectroscopy. **2015**, 17, 24193-200	7
1729	Thermally-responsive, nonflammable phosphonium ionic liquid electrolytes for lithium metal batteries: operating at 100 degrees celsius. **2015**, 6, 6601-6606	28
1728	RETRACTED: Synthesis and electrochemical characterization of MWCNTs-improved Li3V2(PO4)3/C as cathode material for lithium-ion batteries with extremely high capacity. **2015**, 180, 252-259	1
1727	Porous Hierarchical Nitrogen-doped Carbon Coated ZnFe2O4 Composites as High Performance Anode Materials for Lithium Ion Batteries. **2015**, 180, 622-628	50
1726	Electrochemical performance improvement of Li1.2[Mn0.54Ni0.13Co0.13]O2 cathode material by sulfur incorporation. **2015**, 180, 218-226	12
1725	Bi0.94Sb1.06S3 Nanorod Cluster Anodes for Sodium-Ion Batteries: Enhanced Reversibility by the Synergistic Effect of the Bi2S3–Sb2S3 Solid Solution. **2015**, 27, 6139-6145	76
1724	Synergistic Effects of Suberonitrile-LiBOB Binary Additives on the Electrochemical Performance of High-Voltage LiCoO2Electrodes. **2015**, 162, A7015-A7023	31
1723	Synthesis, characterization and electrochemical performance of Al-substituted Li2MnO3. **2015**, 201, 13-22	16
1722	Electrode nanomaterials for lithium-ion batteries. **2015**, 84, 826-852	73
1721	Joint Effects of Photoactive TiO2 and Fluoride-Doping on SnO2 Inverse Opal Nanoarchitecture for Solar Water Splitting. **2015**, 7, 20292-303	62
1720	Growth of nickel silicate nanoplates on reduced graphene oxide as layered nanocomposites for highly reversible lithium storage. **2015**, 7, 16805-11	44
1719	Li3V2(PO4)3 particles embedded in porous N-doped carbon as high-rate and long-life cathode material for Li-ion batteries. **2015**, 5, 78209-78214	6

1718	Anatase/TiO2-B hybrid microspheres constructed from ultrathin nanosheets: facile synthesis and application for fast lithium ion storage. **2015**, 17, 7930-7937	17
1717	Electrochemical performance degeneration mechanism of LiCoO2 with high state of charge during long-term charge/discharge cycling. **2015**, 5, 81235-81242	29
1716	Failure Study of Commercial LiFePO4 Cells in Overcharge Conditions Using Electrochemical Impedance Spectroscopy. **2015**, 162, A2208-A2217	32
1715	Hollow Core-Shell SnO2/C Fibers as Highly Stable Anodes for Lithium-Ion Batteries. **2015**, 7, 21472-8	116
1714	Vanadium Sulfide on Reduced Graphene Oxide Layer as a Promising Anode for Sodium Ion Battery. **2015**, 7, 20902-8	171
1713	Synthesis and characterization of Zr-doped LiNi0.4Co0.2Mn0.4O2 cathode materials for lithium ion batteries. **2015**, 5, 75248-75253	29
1712	SiO2-directed surface control of hierarchical MoS2 microspheres for stable lithium-ion batteries. **2015**, 5, 74012-74016	5
1711	Hierarchical carbon nanocages as high-rate anodes for Li- and Na-ion batteries. **2015**, 8, 3535-3543	64
1710	Facile and Nonradiation Pretreated Membrane as a High Conductive Separator for Li-Ion Batteries. **2015**, 7, 20184-9	30
1709	Ultra-small sulphur nanoparticles configured inside a flexible organic mixed conducting network as a cathode for lithium–sulphur batteries. **2015**, 3, 20958-20965	16
1708	Fluorine-Doped Carbon Particles Derived from Lotus Petioles as High-Performance Anode Materials for Sodium-Ion Batteries. **2015**, 119, 21336-21344	128
1707	LaPO4-coated Li1.2Mn0.56Ni0.16Co0.08O2 as a cathode material with enhanced coulombic efficiency and rate capability for lithium ion batteries. **2015**, 5, 77324-77331	18
1706	Fish scale derived nitrogen doped hierarchical porous carbon– high rate performing anode for lithium ion cell. **2015**, 182, 1-10	50
1705	Improving the electrochemical properties of LiNi(0.5)Co(0.2)Mn(0.3)O2 at 4.6 V cutoff potential by surface coating with Li2TiO3 for lithium-ion batteries. **2015**, 17, 32033-43	69
1704	The Contradiction Between the Half-Cell and Full-Battery Evaluations on the Tungsten-Coating LiNi0.5Co0.2Mn0.3O2 Cathode. **2015**, 180, 604-609	19
1703	Design and Synthesis of novel CuxGeOy/Cu/C nanowires by in situ chemical reduction process with highly reversible capacity for Lithium Batteries. **2015**, 186, 231-238	2
1702	Cotton-Textile-Enabled, Flexible Lithium-Ion Batteries with Enhanced Capacity and Extended Lifespan. **2015**, 15, 8194-203	173
1701	Research progress on design strategies, synthesis and performance of LiMn2O4-based cathodes. **2015**, 5, 105248-105258	48

1700	Graphene quantum dots coated VO2 arrays for highly durable electrodes for Li and Na ion batteries. **2015**, 15, 565-73	417
1699	Fast Solid-State Li Ion Conducting Garnet-Type Structure Metal Oxides for Energy Storage. **2015**, 6, 292-9	158
1698	Electrospun SnSb Crystalline Nanoparticles inside Porous Carbon Fibers as a High Stability and Rate Capability Anode for Rechargeable Batteries. **2015**, 80, 516-521	25
1697	Li[B(OCH2CF3)4]: synthesis, characterization and electrochemical application as a conducting salt for LiSB batteries. **2015**, 16, 666-75	14
1696	Spinel compounds as multivalent battery cathodes: a systematic evaluation based on ab initio calculations. **2015**, 8, 964-974	326
1695	Evidence for Al doping in lithium sublattice of LiFePO4. **2015**, 270, 33-38	25
1694	Nanoscale spinel LiFeTiO4 for intercalation pseudocapacitive Li(+) storage. **2015**, 17, 1482-8	30
1693	Glucose-assisted synthesis of the hierarchical TiO2 nanowire@MoS2 nanosheet nanocomposite and its synergistic lithium storage performance. **2015**, 3, 2762-2769	128
1692	Experimental Validation of the Elimination of Dendrite Short-Circuit Failure in Secondary Lithium-Metal Convection Cell Batteries. **2015**, 162, A262-A268	50
1691	Multi-layer electrode with nano-Li4Ti5O12 aggregates sandwiched between carbon nanotube and graphene networks for high power Li-ion batteries. **2014**, 4, 7334	42
1690	Fundamental degradation mechanisms of layered oxide Li-ion battery cathode materials: Methodology, insights and novel approaches. **2015**, 192, 3-25	287
1689	Manganese oxide/carbon yolk-shell nanorod anodes for high capacity lithium batteries. **2015**, 15, 738-44	318
1688	One-pot synthesis of carbon coated Fe3O4 nanosheets with superior lithium storage capability. **2015**, 3, 4716-4721	58
1687	Superior Lithium Storage Properties of □FeOOH. **2015**, 5, 1401517	47
1686	Taichi-inspired rigid-flexible coupling cellulose-supported solid polymer electrolyte for high-performance lithium batteries. **2014**, 4, 6272	108
1685	Copper-doped dual phase Li4Ti5O12-TiO2 nanosheets as high-rate and long cycle life anodes for high-power lithium-ion batteries. **2015**, 8, 114-22	98
1684	Impact of Proton Concentration on Equilibrium Potential and Polarization of Vanadium Flow Batteries. **2015**, 80, 382-389	18
1683	Is there a universal reaction mechanism of Li insertion into oxidic spinels: a case study using MgFe2O4. **2015**, 3, 1549-1561	27

1682	Combining mechanical and chemical effects in the deformation and failure of a cylindrical electrode particle in a Li-ion battery. **2015**, 54, 66-81	45
1681	Predicting the voltage dependence of interfacial electrochemical processes at lithium-intercalated graphite edge planes. **2015**, 17, 1637-43	62
1680	Carbon with ultrahigh capacitance when graphene paper meets K3Fe(CN)6. **2015**, 7, 432-9	81
1679	A Flexible Porous Carbon Nanofibers-Selenium Cathode with Superior Electrochemical Performance for Both Li-Se and Na-Se Batteries. **2015**, 5, 1401377	191
1678	Cyanogel-derived formation of 3 D nanoporous SnO2-MxOy (M=Ni, Fe, Co) hybrid networks for high-performance lithium storage. **2015**, 8, 131-7	61
1677	Very high power and superior rate capability LiFePO4 nanorods hydrothermally synthesized using tetraglycol as surfactant. **2015**, 5, 1859-1866	13
1676	Silver/carbon nanotube hybrids: A novel conductive network for high-rate lithium ion batteries. **2015**, 151, 16-20	15
1675	Structural stability and bonding nature of Li□Sn□arbon nanocomposites as Li-ion battery anodes: first principles approach. **2015**, 5, 123-129	7
1674	Electrochemical property studies of carbon nanotube films fabricated by CVD method as anode materials for lithium-ion battery applications. **2015**, 112, 1-4	30
1673	Nanostructured tin□arbon/ LiNi0.5Mn1.5O4 lithium-ion battery operating at low temperature. **2015**, 275, 227-233	33
1672	New understanding of Li3VO4/C as potential anode for Li-ion batteries: Preparation, structure characterization and lithium insertion mechanism. **2015**, 274, 345-354	91
1671	High energy xLi2MnO3□(1□)LiNi2/3Co1/6Mn1/6O2 composite cathode for advanced Li-ion batteries. **2015**, 274, 440-450	14
1670	Controlling the shape of LiCoPO□nanocrystals by supercritical fluid process for enhanced energy storage properties. **2014**, 4, 3975	43
1669	Detailed investigation of Na2.24FePO4CO3 as a cathode material for Na-ion batteries. **2014**, 4, 4188	67
1668	Biomass-derived materials for electrochemical energy storages. **2015**, 43, 136-164	199
1667	Mesoporous Co3O4 sheets/3D graphene networks nanohybrids for high-performance sodium-ion battery anode. **2015**, 273, 878-884	151
1666	Hybrid supercapacitor-battery materials for fast electrochemical charge storage. **2014**, 4, 4315	192
1665	Study on Stability and Electrochemical Properties of Nano-LiMn1.9Ni0.1O3.99S0.01-Based Li-Ion Batteries with Liquid Electrolyte Containing LiPF6. **2016**, 2016, 1-9	1

1664	Nature of the Electrochemical Properties of Sulphur Substituted LiMnDO Spinel Cathode Material Studied by Electrochemical Impedance Spectroscopy. **2016**, 9,	8
1663	Well-Dispersed Co/CoO/C Nanospheres with Tunable Morphology as High-Performance Anodes for Lithium Ion Batteries. **2016**, 9,	
1662	A Brief Review on Multivalent Intercalation Batteries with Aqueous Electrolytes. **2016**, 6,	103
1661	Electrospinning of Nanofibers for Energy Applications. **2016**, 6,	79
1660	Robust vanadium pentoxide electrodes for sodium and calcium ion batteries: thermodynamic and diffusion mechanical insights. **2016**, 4, 12516-12525	22
1659	Hierarchical LiNixCoyO2 mesostructures as high-performance cathode materials for lithium ion batteries. **2016**, 326, 279-284	7
1658	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
1657	Synergistic Effect of Mesoporous Co3 O4 Nanowires Confined by N-Doped Graphene Aerogel for Enhanced Lithium Storage. **2016**, 12, 3849-60	70
1656	Carbon-Infused MoS2 Supported on TiO2 Nanosheet Arrays for Intensified Anodes in Lithium Ion Batteries. **2016**, 212, 59-67	18
1655	Nanoscale Engineering of Heterostructured Anode Materials for Boosting Lithium-Ion Storage. **2016**, 28, 7580-602	177
1654	Graphene-Based Nanocomposites for Energy Storage. **2016**, 6, 1502159	233
1653	Low-Temperature Solution-Based Phosphorization Reaction Route to Sn4P3/Reduced Graphene Oxide Nanohybrids as Anodes for Sodium Ion Batteries. **2016**, 6, 1600376	159
1652	Carbon Nanotubes and Graphene for Flexible Electrochemical Energy Storage: from Materials to Devices. **2016**, 28, 4306-37	481
1651	Operando Lithium Dynamics in the Li-Rich Layered Oxide Cathode Material via Neutron Diffraction. **2016**, 6, 1502143	85
1650	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
1649	Effect of aqueous-based cathode slurry pH and immersion time on corrosion of aluminum current collector in lithium-ion batteries. **2016**, 67, 978-987	24
1648	Impedance spectroscopy, ionic conductivity and dielectric studies of new Li+ ion conducting polymer blend electrolytes based on biodegradable polymers for solid state battery applications. **2016**, 27, 11410-11424	55
1647	Metallic VS2 Monolayer Polytypes as Potential Sodium-Ion Battery Anode via ab Initio Random Structure Searching. **2016**, 8, 18754-62	110

1646	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
1645	What use for polysilsesquioxane lithium salts in lithium batteries?. **2016**, 40, 7657-7662	
1644	Hollow Silica Spheres Embedded in a Porous Carbon Matrix and Its Superior Performance as the Anode for Lithium-Ion Batteries. **2016**, 33, 110-117	43
1643	3D Interconnected Porous Graphene Sheets Loaded with Cobalt Oxide Nanoparticles for Lithium-Ion Battery Anodes. **2016**, 4, 816-822	5
1642	Enhancing the Kinetics of Li-Rich Cathode Materials through the Pinning Effects of Gradient Surface Na+ Doping. **2016**, 6, 1501914	185
1641	Critical Challenges in Rechargeable Aprotic Li□2 Batteries. **2016**, 6, 1502303	305
1640	Nanoarchitectured Array Electrodes for Rechargeable Lithium- and Sodium-Ion Batteries. **2016**, 6, 1502514	140
1639	A Novel Aluminum□Graphite Dual-Ion Battery. **2016**, 6, 1502588	513
1638	Conformal electrodeposition of poly(phenylene oxide) on TiO2 nanotube arrays with high performance for lithium ion battery. **2016**, 133,	5
1637	Nitrogen-Doped Ordered Mesoporous Anatase TiO2 Nanofibers as Anode Materials for High Performance Sodium-Ion Batteries. **2016**, 12, 3522-9	119
1636	ENGINEERING. Solar-powering the Internet of Things. **2016**, 353, 124-5	84
1635	Sodium-Oxygen Batteries: A Comparative Review from Chemical and Electrochemical Fundamentals to Future Perspective. **2016**, 28, 7065-93	172
1634	Subzero-Temperature Cathode for a Sodium-Ion Battery. **2016**, 28, 7243-8	299
1633	Multidimensional Germanium-Based Materials as Anodes for Lithium-Ion Batteries. **2016**, 11, 1169-81	15
1632	In-situ assembly of three-dimensional MoS2 nanoleaves/carbon nanofiber composites derived from bacterial cellulose as flexible and binder-free anodes for enhanced lithium-ion batteries. **2016**, 211, 404-410	52
1631	In situ sonochemical synthesis of luminescent Sn@C-dots and a hybrid Sn@C-dots@Sn anode for lithium-ion batteries. **2016**, 6, 66256-66265	23
1630	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
1629	A Long-Life Lithium Ion Battery with Enhanced Electrode/Electrolyte Interface by Using an Ionic Liquid Solution. **2016**, 22, 6808-14	42

1628	Nanostructured TiO2-Based Anode Materials for High-Performance Rechargeable Lithium-Ion Batteries. **2016**, 2, 764-775	90
1627	All-Component Transient Lithium-Ion Batteries. **2016**, 6, 1502496	37
1626	Li3N as a Cathode Additive for High-Energy-Density Lithium-Ion Batteries. **2016**, 6, 1502534	109
1625	Simple technique for high-throughput marking of distinguishable micro-areas for microscopy. **2016**, 262, 28-32	1
1624	Measuring Li+Inventory Losses in LiCoO2/Graphite Cells Using Raman Microscopy. **2016**, 163, A1036-A1041	11
1623	Supramolecular assembly-mediated lithium ion transport in nanostructured solid electrolytes. **2016**, 6, 38223-38227	9
1622	Fabricating Li3V2(PO4)3/biocarbon anode using nori for lithium ion batteries. **2016**, 27, 11814-11824	5
1621	Reshaping Lithium Plating/Stripping Behavior via Bifunctional Polymer Electrolyte for Room-Temperature Solid Li Metal Batteries. *Journal of the American Chemical Society*, **2016**, 138, 15825-15828	164 329
1620	Unconventional Magnetism and Band Gap Formation in LiFePO4: Consequence of Polyanion Induced Non-planarity. **2016**, 6, 19573	15
1619	Si doped T6 carbon structure as an anode material for Li-ion batteries: An ab initio study. **2016**, 6, 37822	5
1618	Editors' ChoiceÞractical Assessment of Anionic Redox in Li-Rich Layered Oxide Cathodes: A Mixed Blessing for High Energy Li-Ion Batteries. **2016**, 163, A2965-A2976	107
1617	A comprehensive study on the degradation of lithium-ion batteries during calendar ageing: The internal resistance increase. **2016**,	5
1616	Effect of binary conductive additive mixtures on electrochemical performance of polyoxomolybdate as cathode material of lithium ion battery. **2016**, 23, 2506-2512	1
1615	Nanoscale zinc-based metal-organic framework with high capacity for lithium-ion batteries. **2016**, 18, 1	18
1614	Artificial solid electrolyte interphase with in-situ formed porosity for enhancing lithiation of silicon wafer. **2016**, 336, 401-407	6
1613	Concentration dependent electrochemical properties and structural analysis of a simple magnesium electrolyte: magnesium bis(trifluoromethane sulfonyl)imide in diglyme. **2016**, 6, 113663-113670	42
1612	Stability of the LiMn2O4surface in a LiPF6-based non-aqueous electrolyte studied by in-situ atomic force microscopy. **2016**, 55, 065801	4
1611	Selective and low temperature transition metal intercalation in layered tellurides. **2016**, 7, 13809	7

1610	Advanced Nanomaterials for the Design and Construction of Anode for Microbial Fuel Cells. **2016**, 457-483	1
1609	Silicon clathrates for lithium ion batteries: A perspective. **2016**, 3, 040805	14
1608	Enhanced ionic conductivity with Li7O2Br3 phase in Li3OBr anti-perovskite solid electrolyte. **2016**, 109, 101904	27
1607	Computational characterization of lightweight multilayer MXene Li-ion battery anodes. **2016**, 108, 023901	66
1606	Conducting Polymer-based Hybrid Nanocomposites as Promising Electrode Materials for Lithium Batteries. **2016**, 355-396	
1605	Penta-graphene: A Promising Anode Material as the Li/Na-Ion Battery with Both Extremely High Theoretical Capacity and Fast Charge/Discharge Rate. **2016**, 8, 35342-35352	107
1604	The role of nanotechnology in the development of battery materials for electric vehicles. **2016**, 11, 1031-1038	462
1603	Employing Synergetic Effect of Doping and Thin Film Coating to Boost the Performance of Lithium-Ion Battery Cathode Particles. **2016**, 6, 25293	18
1602	Characterization of LiMn2O4 cathodes by electrochemical strain microscopy. **2016**, 108, 113106	20
1601	Cathode Loading Effect on Sulfur Utilization in Lithium□Sulfur Battery. **2016**, 13,	13
1600	Interfacial Impedance Studies of Multilayer Structured Electrolyte Fabricated With Solvent-Casted PEO10□LiN(CF3SO2)2 and Ceramic Li1.3Al0.3Ti1.7(PO4)3 and Its Application in All-Solid-State Lithium Ion Batteries. **2016**, 13,	9
1599	Measurement of Multiscale Thermal Transport Phenomena in Li-Ion Cells: A Review. **2016**, 13,	43
1598	Engineering Heteromaterials to Control Lithium Ion Transport Pathways. **2015**, 5, 18482	8
1597	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
1596	(PO4)3□polyanions doped LiNi1/3Co1/3Mn1/3O2: An ultrafast-rate, long-life and high-voltage cathode material for Li-ion rechargeable batteries. **2016**, 201, 8-19	27
1595	The confinement of SnO2 nanocrystals into 3D RGO architectures for improved rate and cyclic performance of LIB anode. **2016**, 18, 6049-6054	12
1594	Iron(III) fluoride synthesized by a fluorolysis method and its electrochemical properties as a positive electrode material for lithium secondary batteries. **2016**, 184, 75-81	9
1593	Scenario-based prediction of Li-ion batteries fire-induced toxicity. **2016**, 316, 197-206	47

1592	A particle–carbon matrix architecture for long-term cycle stability of ZnFe2O4 anode. **2016**, 6, 35110-35117	8
1591	Improving the Electrochemical Performance of Li1.14Ni0.18Mn0.62O2 by Modulating Structure Defects via a Molten Salt Method. **2016**, 3, 98-104	12
1590	Li2S nano spheres anchored to single-layered graphene as a high-performance cathode material for lithium/sulfur cells. **2016**, 26, 524-532	56
1589	Nitrogen-doped carbon nanofibers derived from polypyrrole coated bacterial cellulose as high-performance electrode materials for supercapacitors and Li-ion batteries. **2016**, 210, 130-137	46
1588	Effect of nickel and iron on structural and electrochemical properties of O3 type layer cathode materials for sodium-ion batteries. **2016**, 324, 106-112	37
1587	Elucidation of the Conversion Reaction of CoMnFeO4 Nanoparticles in Lithium Ion Battery Anode via Operando Studies. **2016**, 8, 15320-32	29
1586	Facile synthesis of hierarchical MoS2–carbon microspheres as a robust anode for lithium ion batteries. **2016**, 4, 9653-9660	68
1585	Studies of a layered-spinel Li[Ni1/3Mn2/3]O2 cathode material for Li-ion batteries synthesized by a hydrothermal precipitation. **2016**, 213, 131-139	8
1584	Thigh burns from exploding e-cigarette lithium ion batteries: First case series. **2016**, 42, e42-6	43
1583	Composite of few-layer MoO3 nanosheets with graphene as a high performance anode for sodium-ion batteries. **2016**, 4, 9466-9471	60
1582	Is alpha-V2O5 a cathode material for Mg insertion batteries?. **2016**, 323, 44-50	80
1581	Electrochemical magnesiation of the intermetallic InBi through conversion-alloying mechanism. **2016**, 209, 730-736	21
1580	Graphene based nanocomposites for alloy (SnO2), and conversion (Fe3O4) type efficient anodes for Li-ion battery applications. **2016**, 130, 88-95	12
1579	Designed construction and validation of carbon-free porous MnO spheres with hybrid architecture as anodes for lithium-ion batteries. **2016**, 18, 15854-60	13
1578	Graphene quantum dots: structural integrity and oxygen functional groups for high sulfur/sulfide utilization in lithium sulfur batteries. **2016**, 8, e272-e272	78
1577	Core–Exciton Interaction in Sodium L2,3 edge Structure Investigated Using the Bethe–Salpeter Equation. **2016**, 120, 9036-9042	10
1576	Fabrication of SnO2 Asymmetric Membranes for High Performance Lithium Battery Anode. **2016**, 8, 13946-56	22
1575	Incorporation of homogeneous Co3O4 into a nitrogen-doped carbon aerogel via a facile in situ synthesis method: implications for high performance asymmetric supercapacitors. **2016**, 4, 9542-9554	85

1574	Single-Ion Block Copoly(ionic liquid)s as Electrolytes for All-Solid State Lithium Batteries. **2016**, 8, 10350-9	188
1573	Low-Cost Hollow Mesoporous Polymer Spheres and All-Solid-State Lithium, Sodium Batteries. **2016**, 6, 1501802	110
1572	Preparation, morphology and electrochemical performances of LiFePO4-expanded graphite composites as the positive material for Li-ion capacitor application in aqueous neutral electrolyte. **2016**, 27, 4417-4425	2
1571	Ionothermal Synthesis of High-Voltage Alluaudite Na2+2xFe2-x(SO4)3 Sodium Insertion Compound: Structural, Electronic, and Magnetic Insights. **2016**, 8, 6982-91	52
1570	Suppressing the voltage-fading of layered lithium-rich cathode materials via an aqueous binder for Li-ion batteries. **2016**, 52, 4683-6	64
1569	Effect of TiO2 nanoparticles on structural, thermal, mechanical and ionic conductivity studies of PEO12LiTDI solid polymer electrolyte. **2016**, 37, 347-353	68
1568	Synthesis of lithium titanium oxide (Li4Ti5O12) with ultrathin carbon layer using supercritical fluids for anode materials in lithium batteries. **2016**, 51, 6220-6234	10
1567	Hierarchical porous ZnMn2O4 microspheres architectured with sub-nanoparticles as a high performance anode for lithium ion batteries. **2016**, 679, 231-238	25
1566	Temperature effects on Li4Ti5O12 electrode/electrolyte interfaces at the first cycle: A X-ray Photoelectron Spectroscopy and Scanning Auger Microscopy study. **2016**, 318, 291-301	30
1565	Atomic Layer Deposition of Al2O3-Ga2O3 Alloy Coatings for Li[Ni0.5Mn0.3Co0.2]O2 Cathode to Improve Rate Performance in Li-Ion Battery. **2016**, 8, 10572-80	45
1564	The state of understanding of the lithium-ion-battery graphite solid electrolyte interphase (SEI) and its relationship to formation cycling. **2016**, 105, 52-76	869
1563	A study of methyl phenyl carbonate and diphenyl carbonate as electrolyte additives for high voltage LiNi 0.8 Mn 0.1 Co 0.1 O 2 /graphite pouch cells. **2016**, 318, 228-234	48
1562	Li3V2(PO4)3/nitrogen-doped reduced graphene oxide nanocomposite with enhanced lithium storage properties. **2016**, 20, 1983-1990	4
1561	Structural Evolution of Reversible Mg Insertion into a Bilayer Structure of V2O5hH2O Xerogel Material. **2016**, 28, 2962-2969	73
1560	A composite with SiOx nanoparticles confined in carbon framework as an anode material for lithium ion battery. **2016**, 6, 40799-40805	18
1559	Research progress in Na-ion capacitors. **2016**, 4, 7538-7548	121
1558	Long cycle life microporous spherical carbon anodes for sodium-ion batteries derived from furfuryl alcohol. **2016**, 4, 6271-6275	38
1557	Materials chemistry toward electrochemical energy storage. **2016**, 4, 7522-7537	110

1556	A promising sol-gel method to synthesize NaVO3 as anode material for lithium ion batteries. **2016**, 20, 1803-1812	12
1555	First-Principles studies of silicon underpotential deposition on defective graphene and its relevance for lithium-ion battery materials. **2016**, 208, 92-101	11
1554	In-situ Formation of Ni3S2 Interlayer between MoS2 and Ni Foam for High-rate and Highly-durable Lithium Ion Batteries. **2016**, 206, 52-60	18
1553	Tin-based anode materials with well-designed architectures for next-generation lithium-ion batteries. **2016**, 321, 11-35	145
1552	Mesoporous Cladophora cellulose separators for lithium-ion batteries. **2016**, 321, 185-192	71
1551	Synthesis and Electrochemical Properties of a High Capacity Li-rich Cathode Material in molten KCl-Na2CO3 flux. **2016**, 196, 749-755	7
1550	Synthesis, Properties, and Applications of Hollow Micro-/Nanostructures. **2016**, 116, 10983-1060	996
1549	Enhanced electrochemical properties of MgF2 and C co-coated Li3V2(PO4)3 composite for Li-ion batteries. **2016**, 762, 1-6	11
1548	Self-sacrificed synthesis of three-dimensional Na3V2(PO4)3 nanofiber network for high-rate sodium□on full batteries. **2016**, 25, 145-153	186
1547	Conduction and Surface Effects in Cathode Materials: Li8ZrO6 and Doped Li8ZrO6. **2016**, 120, 9637-9649	9
1546	Strategies to curb structural changes of lithium/transition metal oxide cathode materials & the changes□effects on thermal & cycling stability. **2016**, 25, 018205	13
1545	Emerging scanning probe approaches to the measurement of ionic reactivity at energy storage materials. **2016**, 408, 2707-15	16
1544	Binding TiO2-B nanosheets with N-doped carbon enables highly durable anodes for lithium-ion batteries. **2016**, 4, 8172-8179	43
1543	Optimal hydrothermal synthesis of hierarchical porous ZnMn 2 O 4 microspheres with more porous core for improved lithium storage performance. **2016**, 207, 58-65	20
1542	The intercalation chemistry of layered iron chalcogenide superconductors. **2016**, 242, 3-21	40
1541	Electrode surface engineering by atomic layer deposition: A promising pathway toward better energy storage. **2016**, 11, 250-271	91
1540	High-voltage Zn/LiMn0.8Fe0.2PO4 aqueous rechargeable battery by virtue of □water-in-salt□ electrolyte. **2016**, 69, 6-10	99
1539	Construction of sandwich-type hybrid structures by anchoring mesoporous ZnMn2O4 nanofoams on reduced graphene oxide with highly enhanced capability. **2016**, 4, 10419-10424	41

1538	Graphene-like nanocomposites anchored by Ni3S2 slices for Li-ion storage. **2016**, 6, 48083-48088	21
1537	Hierarchical porous reduced graphene oxide/SnO 2 networks as highly stable anodes for lithium-ion batteries. **2016**, 207, 9-15	57
1536	Surface modification of vertically aligned graphene nanosheets by microwave assisted etching for application as anode of lithium ion battery. **2016**, 296, 31-36	11
1535	Understanding undesirable anode lithium plating issues in lithium-ion batteries. **2016**, 6, 88683-88700	204
1534	One-step synthesis of nitrogen-doped graphene-like meso-macroporous carbons as highly efficient and selective adsorbents for CO2 capture. **2016**, 4, 14567-14571	53
1533	Analytical Approach for Evaluation of Lithium-Ion Battery Cells. **2016**, 4, 1543-1549	5
1532	First exploration of freestanding and flexible NaFe(SO)@porous carbon nanofiber hybrid films with superior sodium intercalation for sodium ion batteries. **2016**, 18, 26933-26941	58
1531	Janus-Faced, Dual-Conductive/Chemically Active Battery Separator Membranes. **2016**, 26, 7074-7083	50
1530	Synthesis of Lignin-Based Nanomaterials/Nanocomposites: Recent Trends and Future Perspectives. **2016**, 12, 153-160	18
1529	Three-dimensional SnO2/carbon on Cu foam for high-performance lithium ion battery anodes. **2016** , 27, 415401	7
1528	Solution Combustion Synthesis of Nanoscale Materials. **2016**, 116, 14493-14586	640
1527	A chemically modified graphene oxide wrapped porous hematite nano-architecture as a high rate lithium-ion battery anode material. **2016**, 6, 82698-82706	10
1526	The roles of oxygen non-stoichiometry on the electrochemical properties of oxide-based cathode materials. **2016**, 11, 678-694	54
1525	Comparison of Li/Ni antisite defects in Fd-3 m and P4 3 32 nanostructured LiNi 0.5 Mn 1.5 O 4 electrode for Li-ion batteries. **2016**, 213, 368-374	25
1524	Mitigating voltage and capacity fading of lithium-rich layered cathodes by lanthanum doping. **2016**, 335, 65-75	67
1523	Mesoporous and Nanostructured TiO layer with Ultra-High Loading on Nitrogen-Doped Carbon Foams as Flexible and Free-Standing Electrodes for Lithium-Ion Batteries. **2016**, 12, 6724-6734	72
1522	Nanorod-Nanoflake Interconnected LiMnPO□LiV(PO)/C Composite for High-Rate and Long-Life Lithium-Ion Batteries. **2016**, 8, 27632-27641	38
1521	MOF-derived, N-doped porous carbon coated graphene sheets as high-performance anodes for lithium-ion batteries. **2016**, 40, 9679-9683	24

1520	Carbon-Coated Porous Aluminum Foil Anode for High-Rate, Long-Term Cycling Stability, and High Energy Density Dual-Ion Batteries. **2016**, 28, 9979-9985	280
1519	An Electrochemical Impedance Spectroscopy Study on a Lithium Sulfur Pouch Cell. **2016**, 72, 13-22	7
1518	Reducing Li-diffusion pathways via adherence of ultra-small nanocrystals of LiFePO4 on few-layer nanoporous holey-graphene sheets for achieving high rate capability. **2016**, 6, 89328-89337	10
1517	A critical review of macroscopic modeling studies on Li–O2 and Li–air batteries using organic electrolyte: Challenges and opportunities. **2016**, 332, 420-446	52
1516	Ag-deposited 3D porous Si anodes with enhanced cycling stability for lithium-ion batteries. **2016**, 185, 558-560	15
1515	Computational electrochemistry study of derivatives of anthraquinone and phenanthraquinone analogues: the substitution effect. **2016**, 6, 89827-89835	12
1514	Industrialization of tailoring spherical cathode material towards high-capacity, cycling-stable and superior low temperature performance for lithium-ion batteries. **2016**, 6, 97818-97824	7
1513	A novel imidazole-based electrolyte additive for improved electrochemical performance of high voltage nickel-rich cathode coupled with graphite anode lithium ion battery. **2016**, 332, 312-321	47
1512	Low-cost carbon-coated Si-Cu3Si-Al2O3 nanocomposite anodes for high-performance lithium-ion batteries. **2016**, 332, 222-229	19
1511	Charge–discharge studies of all-solid-state Li/LiFePO4 cells with PEO-based composite electrolytes encompassing metal organic frameworks. **2016**, 6, 97180-97186	40
1510	Hybrid solid electrolyte with the combination of Li7La3Zr2O12 ceramic and ionic liquid for high voltage pseudo-solid-state Li-ion batteries. **2016**, 4, 17025-17032	51
1509	Lamellar MoSe nanosheets embedded with MoO nanoparticles: novel hybrid nanostructures promoted excellent performances for lithium ion batteries. **2016**, 8, 17902-17910	129
1508	Tailorable electrochemical performance of spinel cathode materials via in-situ integrating a layered Li2MnO3 phase for lithium-ion batteries. **2016**, 333, 43-52	17
1507	High performance PPO/Ti3+/TiO2NT membrane/electrode for lithium ion battery. **2016**, 42, 16611-16618	20
1506	Effect of crystalline structure on the electrochemical properties of K0.25V2O5 nanobelt for fast Li insertion. **2016**, 218, 199-207	13
1505	Surface Analytical Study Regarding the Solid Electrolyte Interphase Composition of Nanoparticulate SnO2 Anodes for Li-Ion Batteries. **2016**, 120, 24706-24714	22
1504	Cycling of a Lithium-Ion Battery with a Silicon Anode Drives Large Mechanical Actuation. **2016**, 28, 10236-10243	33
1503	The Role of Reduced Graphite Oxide in Transition Metal Oxide Nanocomposites Used as Li Anode Material: An Operando Study on CoFe O /rGO. **2016**, 22, 16929-16938	14

1502	Textured LiFePO4 Bulk with Enhanced Electrical Conductivity. **2016**, 99, 3214-3216		4
1501	A novel imidazole-based electrolyte additive for improved electrochemical performance at elevated temperature of high-voltage LiNi0.5Mn1.5O4 cathodes. **2016**, 329, 586-593		38
1500	Co3O4 negative electrode material for rechargeable sodium ion batteries: An investigation of conversion reaction mechanism and morphology-performances correlations. **2016**, 332, 42-50		71
1499	Electrochemical stiffness in lithium-ion batteries. **2016**, 15, 1182-1187		85
1498	CuS quantum dot modified carbon aerogel as an immobilizer for lithium polysulfides for high-performance lithium–sulfur batteries. **2016**, 6, 71319-71327		28
1497	Supercritical fluid assisted biotemplating synthesis of SiO2 microspheres from microalgae for advanced Li-ion batteries. **2016**, 6, 69764-69772		28
1496	Thermal conductivity and interface thermal conductance of thin films in Li ion batteries. **2016**, 327, 565-572		6
1495	Excess lithium storage in LiFePO4-Carbon interface by ball-milling. **2016**, 09, 1650053		6
1494	Impacts of Surface Energy on Lithium Ion Intercalation Properties of V2O5. **2016**, 8, 19542-9		32
1493	Synthesis and characterization of LiNi0.48Co0.18Mn0.3Mg0.02Ti0.02O2 as a cathode material for lithium ion batteries. **2016**, 6, 75293-75298		6
1492	Bismuth oxide: a versatile high-capacity electrode material for rechargeable aqueous metal-ion batteries. **2016**, 9, 2881-2891		178
1491	Direct Evidence of Solution-Mediated Superoxide Transport and Organic Radical Formation in Sodium-Oxygen Batteries. *Journal of the American Chemical Society*, **2016**, 138, 11219-26	16.4	79
1490	Lithium- and Manganese-Rich Oxide Cathode Materials for High-Energy Lithium Ion Batteries. **2016**, 6, 1600906		177
1489	Liquid perfluoropolyether electrolytes with enhanced ionic conductivity for lithium battery applications. **2016**, 100, 126-133		18
1488	High-Performance Red P-Based P/TiP2O7 Nanocomposite Anode for Lithium-Ion and Sodium-Ion Storage. **2016**, 28, 5935-5942		62
1487	Hierarchical multi-component nanofiber separators for lithium polysulfide capture in lithium–sulfur batteries: an experimental and molecular modeling study. **2016**, 4, 13572-13581		52
1486	All-Integrated Bifunctional Separator for Li Dendrite Detection via Novel Solution Synthesis of a Thermostable Polyimide Separator. *Journal of the American Chemical Society*, **2016**, 138, 11044-50	16.4	143
1485	Strategies toward improving the performance of organic electrodes in rechargeable lithium (sodium) batteries. **2016**, 4, 14902-14914		69

1484	Lithiation Kinetics in High-Performance Porous Vanadium Nitride Nanosheet Anode. **2016**, 214, 201-207	25
1483	Effects of the Pd3Co Nanoparticles-Additive on the Redox Shuttle Reaction in Rechargeable Li-S Batteries. **2016**, 163, A2179-A2184	9
1482	Electron-deficient anthraquinone derivatives as cathodic material for lithium ion batteries. **2016**, 328, 228-234	25
1481	MoO 2 nanoparticles as high capacity intercalation anode material for long-cycle lithium ion battery. **2016**, 213, 416-422	21
1480	Recent Progress in Self-Supported Metal Oxide Nanoarray Electrodes for Advanced Lithium-Ion Batteries. **2016**, 3, 1600049	84
1479	Polymer-Derived and Sodium Hydroxide-Treated Silicon Carbonitride Material as Anodes for High Electrochemical Performance Li□on Batteries. **2016**, 1, 309-317	4
1478	Experimental and numerical investigation of core cooling of Li-ion cells using heat pipes. **2016**, 113, 852-860	55
1477	A chemists view: Metal oxides with adaptive structures for thermoelectric applications. **2016**, 213, 808-823	38
1476	Manipulating the Crystalline Structure and Electrochemical Performance of a Dilithium Manganese Silicate Cathode Material by Polyanion Doping. **2016**, 3, 1805-1812	5
1475	Defective Graphene and Graphene Allotropes as High-Capacity Anode Materials for Mg Ion Batteries. **2016**, 1, 638-645	50
1474	Mesoporous silica nanoparticles as high performance anode materials for lithium-ion batteries. **2016**, 40, 8202-8205	17
1473	Highly conjugated graphitic 3D carbon frameworks for supercapacitors with long cycling stability. **2016**, 109, 650-657	17
1472	Theoretical prediction of MoN2 monolayer as a high capacity electrode material for metal ion batteries. **2016**, 4, 15224-15231	154
1471	Fluorine-free salts for aqueous lithium-ion and sodium-ion battery electrolytes. **2016**, 6, 85194-85201	11
1470	Non-trivial network driven modifications of ion transport in an ionic liquid confined inside a polymer system. **2016**, 1, 391-401	3
1469	Cathodic polarization suppressed sodium-ion full cell with a 3.3 V high-voltage. **2016**, 28, 216-223	76
1468	Chemical modification of pristine carbon nanotubes and their exploitation as the carbon hosts for lithium-sulfur batteries. **2016**, 41, 21850-21860	31
1467	Improving the electrochemical performance of LiNi0.5Co0.2Mn0.3O2 by double-layer coating with Li2TiO3 for lithium-ion batteries. **2016**, 22, 2235-2238	7

1466	Fluorine-Doped Antiperovskite Electrolyte for All-Solid-State Lithium-Ion Batteries. **2016**, 128, 10119-10122	22
1465	Ultrasmall Tin Nanodots Embedded in Nitrogen-Doped Mesoporous Carbon: Metal-Organic-Framework Derivation and Electrochemical Application as Highly Stable Anode for Lithium Ion Batteries. **2016**, 217, 123-131	60
1464	Preparation of Graphite Intercalation Compounds Containing Crown Ethers. **2016**, 55, 8281-4	21
1463	Sodium ion storage in reduced graphene oxide. **2016**, 214, 319-325	42
1462	Redox Species-Based Electrolytes for Advanced Rechargeable Lithium Ion Batteries. **2016**, 1, 529-534	43
1461	Anode-Free Rechargeable Lithium Metal Batteries. **2016**, 26, 7094-7102	297
1460	One strategy to enhance electrochemical properties of Ni-based cathode materials under high cut-off voltage for Li-ion batteries. **2016**, 328, 422-432	48
1459	Rechargeable lithium□air batteries: a perspective on the development of oxygen electrodes. **2016**, 4, 14050-14068	132
1458	Fundamental Research on a New Process to Remove Al3+ as Potassium Alum during Lithium Extraction from Lepidolite. **2016**, 47, 3557-3564	11
1457	The pursuit of solid-state electrolytes for lithium batteries: from comprehensive insight to emerging horizons. **2016**, 3, 487-516	414
1456	Avoiding short circuits from zinc metal dendrites in anode by backside-plating configuration. **2016**, 7, 11801	207
1455	Influence of synthesis temperature on electrochemical performance of polyoxomolybdate as cathode material of lithium ion battery. **2016**, 26, 2687-2692	2
1454	Non-invasive, transient determination of the core temperature of a heat-generating solid body. **2016**, 6, 35886	13
1453	Nanostructured energy materials for electrochemical energy conversion and storage: A review. **2016**, 25, 967-984	316
1452	The Effect of Water and Confinement on Self-Assembly of Imidazolium Based Ionic Liquids at Mica Interfaces. **2016**, 6, 30058	52
1451	High electrochemical performance of lithium-rich Li1.2Mn0.54NixCoyO2 cathode materials for lithium-ion batteries. **2016**, 185, 100-103	8
1450	Investigation into the Surface Chemistry of LiTiO Nanoparticles for Lithium Ion Batteries. **2016**, 8, 26008-26012	30
1449	Hollow porous titanium nitride tubes as a cathode electrode for extremely stable Li□ batteries. **2016**, 4, 16184-16190	75

1448	Improving rate capability and decelerating voltage decay of Li-rich layered oxide cathodes via selenium doping to stabilize oxygen. **2016**, 331, 112-121	56
1447	Preparation and performance of 0.5Li2MnO3□0.5LiNi1/3Co1/3Mn1/3O2 with a fusiform porous micro-nano structure. **2016**, 4, 15929-15939	28
1446	Electrochemical properties of enclosed silicon nanopowder electrode inserted in integrated TiO 2 nanotubes grown on titanium for Li-ion battery. **2016**, 215, 674-681	4
1445	LiVPO4F: A New Cathode for High-Energy Lithium Ion Capacitors. **2016**, 1, 3316-3322	8
1444	Oxygen vacancies in SnO2 surface coating to enhance the activation of layered Li-Rich Li1.2Mn0.54Ni0.13Co0.13O2 cathode material for Li-ion batteries. **2016**, 331, 91-99	75
1443	Electrochemical Quartz Crystal Microbalance with Dissipation Real-Time Hydrodynamic Spectroscopy of Porous Solids in Contact with Liquids. **2016**, 88, 10151-10157	17
1442	High Voltage LiNiMnO/LiTiO Lithium Ion Cells at Elevated Temperatures: Carbonate- versus Ionic Liquid-Based Electrolytes. **2016**, 8, 25971-25978	64
1441	Synthesis and electrochemical performance of a coaxial VGCF@ZnMnO 3 nanocomposite as a high-capacity anode material for lithium-ion batteries. **2016**, 216, 376-385	12
1440	Effect of electrolyte composition on thermal stability and electrochemical performance of LiMn2O4-ySy cathodes for Li-ion batteries. **2016**, 31, 614-622	5
1439	Removal of Aluminum from Leaching Solution of Lepidolite by Adding Ammonium. **2016**, 68, 2653-2658	7
1438	Quantitative probe of the transition metal redox in battery electrodes through soft x-ray absorption spectroscopy. **2016**, 49, 413003	74
1437	An Aqueous Symmetric Sodium-Ion Battery with NASICON-Structured Na3MnTi(PO4)3. **2016**, 128, 12960-12964	53
1436	An Aqueous Symmetric Sodium-Ion Battery with NASICON-Structured Na3 MnTi(PO4)3. **2016**, 55, 12768-72	176
1435	Introducing Rolled-Up Nanotechnology for Advanced Energy Storage Devices. **2016**, 6, 1600797	41
1434	Microwave-assisted synthesis of functional electrode materials for energy applications. **2016**, 20, 2915-2928	29
1433	Applications of Ionic Liquids. **2016**, 1-58	9
1432	All solid-state polymer electrolytes for high-performance lithium ion batteries. **2016**, 5, 139-164	555
1431	Enhanced Performance of a Lithium–Sulfur Battery Using a Carbonate-Based Electrolyte. **2016**, 128, 10528-10532	27

1430	Enhanced Performance of a Lithium-Sulfur Battery Using a Carbonate-Based Electrolyte. **2016**, 55, 10372-5	94
1429	Hierarchical hollow microflowers constructed from mesoporous single crystalline CoMn2O4 nanosheets for high performance anode of lithium ion battery. **2016**, 326, 505-513	43
1428	Designing high-energy lithium-sulfur batteries. **2016**, 45, 5605-5634	1475
1427	Scalable Synthesis of Few-Layer MoS2 Incorporated into Hierarchical Porous Carbon Nanosheets for High-Performance Li- and Na-Ion Battery Anodes. **2016**, 8, 19456-65	100
1426	Resilient Yolk–Shell Silicon–Reduced Graphene Oxide/Amorphous Carbon Anode Material from a Synergistic Dual-Coating Process for Lithium-Ion Batteries. **2016**, 3, 1446-1454	20
1425	Carbon nanotubes in Li-ion batteries: A review. **2016**, 213, 12-40	87
1424	Phosphorene and Phosphorene-Based Materials - Prospects for Future Applications. **2016**, 28, 8586-8617	283
1423	Nanomaterials in Advanced Batteries and Supercapacitors. **2016**,	21
1422	Mitigating Voltage Decay of Li-Rich Cathode Material via Increasing Ni Content for Lithium-Ion Batteries. **2016**, 8, 20138-46	151
1421	Metal Oxides and Lithium Alloys as Anode Materials for Lithium-Ion Batteries. **2016**, 55-91	1
1420	Structural model, size effect and nano-energy system design for more sustainable energy of solid state automotive battery. **2016**, 65, 685-697	7
1419	Computational Modelling as a Value Add in Energy Storage Materials. **2016**, 481-513	1
1418	Multiwalled carbon nanotube webs welded with Si nanoparticles as high-performance anode for lithium-ion batteries. **2016**, 688, 216-224	14
1417	High power high safety battery with electrospun Li3V2(PO4)3 cathode and Li4Ti5O12 anode with 95% energy efficiency. **2016**, 5, 93-102	40
1416	Life cycle assessment of future electric and hybrid vehicles: A cradle-to-grave systems engineering approach. **2016**, 112, 298-309	111
1415	Probing the pseudo-1-D ion diffusion in lithium titanium niobate anode for Li-ion battery. **2016**, 18, 22323-30	14
1414	Thermoplastic Elastomer-Enabled Smart Electrolyte for Thermoresponsive Self-Protection of Electrochemical Energy Storage Devices. **2016**, 28, 7921-7928	87
1413	Fluorine-Doped Antiperovskite Electrolyte for All-Solid-State Lithium-Ion Batteries. **2016**, 55, 9965-8	155

1412	On the Mechanism of Crystal Water Insertion during Anomalous Spinel-to-Birnessite Phase Transition. **2016**, 28, 5488-5494	44
1411	Multifunctional Energy Storage and Conversion Devices. **2016**, 28, 8344-8364	305
1410	Surfactant-free self-assembly of reduced graphite oxide-MoO2 nanobelt composites used as electrode for lithium-ion batteries. **2016**, 211, 972-981	47
1409	Al2O3/PVdF-HFP-CMC/PE separator prepared using aqueous slurry and post-hot-pressing method for polymer lithium-ion batteries with enhanced safety. **2016**, 212, 416-425	55
1408	Contactless, non-intrusive core temperature measurement of a solid body in steady-state. **2016**, 101, 779-788	4
1407	Polyoxovanadate (NH 4) 7 [MnV 13 O 38] as cathode material for lithium ion battery and improved electrochemical performance. **2016**, 26, 2372-2379	5
1406	In Situ Study of Li Intercalation into Highly Crystalline Graphitic Flakes of Varying Thicknesses. **2016** , 7, 4291-4296	54
1405	Preparation and performance of spherical FeF2.5□0.5H2O nanoparticles wrapped by MWCNTs as cathode material of lithium ion batteries. **2016**, 6, 97759-97769	11
1404	Magnesium substitution to improve the electrochemical performance of layered Li2MnO3 positive-electrode material. **2016**, 330, 37-44	21
1403	Effective sulfur-salt composite cathode containing lithium bis(trifluoromethane) sulfonamide for lithium sulfur batteries. **2016**, 220, 130-136	5
1402	Failure mechanisms of single-crystal silicon electrodes in lithium-ion batteries. **2016**, 7, 11886	156
1401	Graphitic Carbon-Coated FeSe2 Hollow Nanosphere-Decorated Reduced Graphene Oxide Hybrid Nanofibers as an Efficient Anode Material for Sodium Ion Batteries. **2016**, 6, 23699	111
1400	Sonochemical Synthesis of Nanostructured Spinel Li4Ti5O12 Negative Insertion Material for Li-ion and Na-ion Batteries. **2016**, 222, 898-903	11
1399	Facile construction of nanoscale laminated Na3V2(PO4)3 for a high-performance sodium ion battery cathode. **2016**, 4, 19170-19178	21
1398	Synthesis of □Fe2O3/carbon nanocomposites as high capacity electrodes for next generation lithium ion batteries: a review. **2016**, 4, 18223-18239	71
1397	Molybdenum Polysulfide Chalcogels as High-Capacity, Anion-Redox-Driven Electrode Materials for Li-Ion Batteries. **2016**, 28, 8357-8365	46
1396	First-Principles Studies on the Structural Stability of Spinel ZnCoO as an Electrode Material for Lithium-ion Batteries. **2016**, 6, 36717	10
1395	NbO microstructures: a high-performance anode for lithium ion batteries. **2016**, 27, 46LT01	19

1394	Carbon-Free Porous ZnGeO Nanofibers as Advanced Anode Materials for High-Performance Lithium Ion Batteries. **2016**, 8, 31722-31728	21
1393	Study of Microstructure Change of Carbon Nanofibers as Binder-Free Anode for High-Performance Lithium-Ion Batteries. **2016**, 8, 33091-33101	40
1392	Energy gels: A bio-inspired material platform for advanced energy applications. **2016**, 11, 738-762	112
1391	Improved Cycling Stability and Fast Charge-Discharge Performance of Cobalt-Free Lithium-Rich Oxides by Magnesium-Doping. **2016**, 8, 32349-32359	69
1390	Modification of Ni-Rich FCG NMC and NCA Cathodes by Atomic Layer Deposition: Preventing Surface Phase Transitions for High-Voltage Lithium-Ion Batteries. **2016**, 6, 26532	157
1389	High loading LiFePO4 on activated carbon fiber cloth as a high capacity cathode for Li-ion battery. **2016**, 89, 1183-1188	3
1388	Long-Term Lithium-Ion Battery Performance Improvement via Ultraviolet Light Treatment of the Graphite Anode. **2016**, 163, A2866-A2875	28
1387	Structural and electrochemical analysis of Zn doped Na3Ni2SbO6 cathode for Na-ion battery. **2016**, 336, 186-195	22
1386	Sequential Molecular Dynamics Simulations: A Strategy for Complex Chemical Reactions and a Case Study on the Graphitization of Cooked 1,3,5-Triamino-2,4,6-trinitrobenzene. **2016**, 120, 25237-25245	15
1385	How to make lithium iron phosphate better: a review exploring classical modification approaches in-depth and proposing future optimization methods. **2016**, 4, 18210-18222	45
1384	Adsorption and diffusion of Li with S on pristine and defected graphene. **2016**, 18, 31268-31276	8
1383	Stabilization of battery electrodes through chemical pre-intercalation of layered materials. **2016**,	2
1382	Amorphous FeO/Graphene Composite Nanosheets with Enhanced Electrochemical Performance for Sodium-Ion Battery. **2016**, 8, 30899-30907	134
1381	Computational understanding of Li-ion batteries. **2016**, 2,	299
1380	Charge storage in oxygen deficient phases of TiO2: defect Physics without defects. **2016**, 6, 28871	39
1379	Understanding the electrochemical properties of A2MSiO4 (A = Li and Na; M = Fe, Mn, Co and Ni) and the Na doping effect on Li2MSiO4 from first-principles calculations. **2016**, 4, 17455-17463	29
1378	Nanoparticle Decorated Ultrathin Porous Nanosheets as Hierarchical Co3O4 Nanostructures for Lithium Ion Battery Anode Materials. **2016**, 6, 20592	60
1377	Engineering the surface of rutile TiO2 nanoparticles with quantum pits towards excellent lithium storage. **2016**, 6, 66197-66203	10

1376	In Situ Study of Silicon Electrode Lithiation with X-ray Reflectivity. **2016**, 16, 7394-7401		48
1375	TiO nanotubes wrapped with reduced graphene oxide as a high-performance anode material for lithium-ion batteries. **2016**, 6, 36580		64
1374	Mastering the interface for advanced all-solid-state lithium rechargeable batteries. **2016**, 113, 13313-13317		193
1373	Fast and reversible thermoresponsive polymer switching materials for safer batteries. **2016**, 1,		190
1372	High-capacity battery cathode prelithiation to offset initial lithium loss. **2016**, 1,		169
1371	Ion-Catalyzed Synthesis of Microporous Hard Carbon Embedded with Expanded Nanographite for Enhanced Lithium/Sodium Storage. *Journal of the American Chemical Society*, **2016**, 138, 14915-14922	16.4	267
1370	A solid future for battery development. **2016**, 1,		1454
1369	Engineering 3D bicontinuous hierarchically macro-mesoporous LiFePO4/C nanocomposite for lithium storage with high rate capability and long cycle stability. **2016**, 6, 25942		45
1368	Cross-linked Composite Gel Polymer Electrolyte using Mesoporous Methacrylate-Functionalized SiO2 Nanoparticles for Lithium-Ion Polymer Batteries. **2016**, 6, 26332		114
1367	A lithium ion battery using an aqueous electrolyte solution. **2016**, 6, 28421		26
1366	From the Junkyard to the Power Grid: Ambient Processing of Scrap Metals into Nanostructured Electrodes for Ultrafast Rechargeable Batteries. **2016**, 1, 1034-1041		8
1365	Rational design of efficient electrode-electrolyte interfaces for solid-state energy storage using ion soft landing. **2016**, 7, 11399		66
1364	Hierarchical MoS2 tubular structures internally wired by carbon nanotubes as a highly stable anode material for lithium-ion batteries. **2016**, 2, e1600021		327
1363	Electrochemical analysis of heavy metal cations and some anions applying the electrodes modified with ionic liquids. **2016**, 261-285		
1362	Learning from Overpotentials in Lithium Ion Batteries: A Case Study on the LiNi1/3Co1/3Mn1/3O2(NCM) Cathode. **2016**, 163, A2943-A2950		76
1361	Operando Soft X-ray Emission Studies of Lithium-Ion Batteries. **2016**, 37, 66-71		
1360	Synthesis of Ionic Liquid Based Electrolytes, Assembly of Li-ion Batteries, and Measurements of Performance at High Temperature. **2016**,		1
1359	Carbon-Rich Active Materials with Macrocyclic Nanochannels for High-Capacity Negative Electrodes in All-Solid-State Lithium Rechargeable Batteries. **2016**, 12, 3381-7		26

1358	Conductive Inks Based on a Lithium Titanate Nanotube Gel for High-Rate Lithium-Ion Batteries with Customized Configuration. **2016**, 28, 1567-76	154
1357	Facile Synthesis of Nanostructured MnO2 as Anode Materials for Sodium-Ion Batteries. **2016**, 2, 196-200	25
1356	Utilizing Environmental Friendly Iron as a Substitution Element in Spinel Structured Cathode Materials for Safer High Energy Lithium-Ion Batteries. **2016**, 6, 1501662	25
1355	Synthesis of SiO2/3D porous carbon composite as anode material with enhanced lithium storage performance. **2016**, 651, 19-23	32
1354	2D sandwich-like carbon-coated ultrathin TiO2@defect-rich MoS2 hybrid nanosheets: Synergistic-effect-promoted electrochemical performance for lithium ion batteries. **2016**, 26, 541-549	129
1353	Biomass-derived carbon: synthesis and applications in energy storage and conversion. **2016**, 18, 4824-4854	560
1352	Graphite fluoride as a cathode material for primary magnesium batteries with high energy density. **2016**, 210, 704-711	14
1351	High-defect hydrophilic carbon cuboids anchored with Co/CoO nanoparticles as highly efficient and ultra-stable lithium-ion battery anodes. **2016**, 4, 10166-10173	149
1350	Heteroepitaxy-Induced Rutile VO2 with Abundantly Exposed (002) Facets for High Lithium Electroactivity. **2016**, 1, 216-224	18
1349	Synchrotron-based x-ray absorption spectroscopy for energy materials. **2016**, 41, 466-472	14
1348	Nanoporous TiO2/Co3O4 Composite as an Anode Material for Lithium-Ion Batteries. **2016**, 211, 83-91	32
1347	Closely packed x-poly(ethylene glycol diacrylate) coated polyetherimide/poly(vinylidene fluoride) fiber separators for lithium ion batteries with enhanced thermostability and improved electrolyte wettability. **2016**, 325, 292-300	37
1346	Highly conductive cathode materials for Li-ion batteries prepared by thermal nanocrystallization of selected oxide glasses. **2016**, 213, 140-147	22
1345	A simple route toward next-gen green energy storage concept by nanofibres-based self-supporting electrodes and a solid polymeric design. **2016**, 107, 811-822	70
1344	Ionic liquid-based sodium ion-conducting composite gel polymer electrolytes: effect of active and passive fillers. **2016**, 20, 2817-2826	44
1343	Electrospun carbon-based nanostructured electrodes for advanced energy storage □A review. **2016**, 5, 58-92	140
1342	A lithium ion conductor in Li4SiO4-Li3PO4-LiBO2 ternary system. **2016**, 293, 72-76	4
1341	Li-Ion Conduction and Stability of Perovskite Li3/8Sr7/16Hf1/4Ta3/4O3. **2016**, 8, 14552-7	69

1340	The structural and chemical origin of the oxygen redox activity in layered and cation-disordered Li-excess cathode materials. **2016**, 8, 692-7	713
1339	Vacancy-induced manganese vanadates and their potential application to Li-ion batteries. **2016**, 52, 7509-12	7
1338	In situ study on the charge/discharge of nanocrystalline Li2C2 as a new cathode material. **2016**, 6, 54256-54262	4
1337	Temperature- and time-tuned morphological evolution of polyhedral magnetite nanocrystals and their facet-dependent high-rate performance for lithium-ion batteries. **2016**, 676, 347-355	12
1336	Effect of different MnO2 precursors on the electrochemical properties of spinel LiNi0.5Mn1.5O4 cathode active materials for high-voltage lithium ion batteries. **2016**, 213, 157-162	3
1335	Design, synthesis, and energy-related applications of metal sulfides. **2016**, 3, 402-421	190
1334	Hierarchical networks of redox-active reduced crumpled graphene oxide and functionalized few-walled carbon nanotubes for rapid electrochemical energy storage. **2016**, 8, 12330-8	30
1333	Sodium Ion Transport Mechanisms in Antiperovskite Electrolytes Na3OBr and Na4OI2: An in Situ Neutron Diffraction Study. **2016**, 55, 5993-8	48
1332	Free-Standing Copper Nanowire Network Current Collector for Improving Lithium Anode Performance. **2016**, 16, 4431-7	481
1331	SEI Formation and Interfacial Stability of a Si Electrode in a LiTDI-Salt Based Electrolyte with FEC and VC Additives for Li-Ion Batteries. **2016**, 8, 15758-66	82
1330	Flexible additive free H2V3O8 nanowire membrane as cathode for sodium ion batteries. **2016**, 18, 12074-9	60
1329	Lithium-Ion Cells Assembled with Flexible Hybrid Membrane Containing Li+-Conducting Lithium Aluminum Germanium Phosphate. **2016**, 163, A974-A980	18
1328	Chemistry and Applications of Supramolecular Graphene Derivatives. **2016**, 355-370	1
1327	Compositional dependence of the alignment of three-dimensionally macroporous architectures assembled by two-dimensional hybrid nanosheets. **2016**, 677, 171-177	3
1326	Highly reversible insertion of lithium into MoO2 as an anode material for lithium ion battery. **2016**, 681, 301-306	16
1325	Three-dimensional VS4/graphene hierarchical architecture as high-capacity anode for lithium-ion batteries. **2016**, 685, 294-299	56
1324	Fabrication of TiNb2O7 thin film electrodes for Li-ion micro-batteries by pulsed laser deposition. **2016**, 213, 90-97	23
1323	One-step preparation and characterization of zinc tungstate/carbon nanoparticles with application to lithium-ion batteries. **2016**, 44, 603-613	1

1322	Amorphous TiS3/S/C Composite Positive Electrodes with High Capacity for Rechargeable Lithium Batteries. **2016**, 163, A1730-A1735	5
1321	Design and synthesis of hollow NiCo2O4 nanoboxes as anodes for lithium-ion and sodium-ion batteries. **2016**, 18, 18949-57	68
1320	Hydrothermal Synthesis of Multiwalled Carbon Nanotube-Zinc Manganate Nanoparticles as Anode Materials for Lithium Ion Batteries. **2016**, 81, 399-405	9
1319	Novel Carbon-Encapsulated Porous SnO2 Anode for Lithium-Ion Batteries with Much Improved Cyclic Stability. **2016**, 12, 1945-55	207
1318	Hollow mesoporous silica sphere-embedded composite separator for high-performance lithium-ion battery. **2016**, 20, 2847-2855	16
1317	A poly-(styrene-acrylonitrile) copolymer-derived hierarchical architecture in electrode materials for lithium-ion batteries. **2016**, 4, 11481-11490	7
1316	Lithium-rich layered nickel□manganese oxides as high-performance cathode materials: the effects of composition and PEG on performance. **2016**, 22, 2067-2073	
1315	First-Principles Characterization of the Unknown Crystal Structure and Ionic Conductivity of Li7P2S8I as a Solid Electrolyte for High-Voltage Li Ion Batteries. **2016**, 7, 2671-5	32
1314	A simple method for industrialization to enhance the tap density of LiNi0.5Co0.2Mn0.3O2 cathode material for high-specific volumetric energy lithium-ion batteries. **2016**, 6, 65941-65949	12
1313	Hydrogenated V2O5 Nanosheets for Superior Lithium Storage Properties. **2016**, 26, 784-791	110
1312	Understanding the Stability for Li-Rich Layered Oxide Li2RuO3 Cathode. **2016**, 26, 1330-1337	90
1311	Insights into Ionic Transport and Structural Changes in Magnetite during Multiple-Electron Transfer Reactions. **2016**, 6, 1502471	57
1310	Synthesis of Lithium Boracarbonate Ion Pairs by Copper-Catalyzed Multi-Component Coupling of Carbon Dioxide, Diboron, and Aldehydes. **2016**, 128, 6365-6368	9
1309	Synthesis of Lithium Boracarbonate Ion Pairs by Copper-Catalyzed Multi-Component Coupling of Carbon Dioxide, Diboron, and Aldehydes. **2016**, 55, 6257-60	32
1308	Preparation of 0.4Li2MnO3□0.6LiNi1/3Co1/3Mn1/3O2 with tunable morphologies via polyacrylonitrile as a template and applications in lithium-ion batteries. **2016**, 133, n/a-n/a	6
1307	High-Performance Low-Temperature Li+ Intercalation in Disordered Rock-Salt Li□TiV Oxyfluorides. **2016**, 3, 892-895	23
1306	Hierarchical Ternary MoO2/MoS2/Heteroatom-Doped Carbon Hybrid Materials for High-Performance Lithium-Ion Storage. **2016**, 3, 922-932	38
1305	Computational Electrochemistry. Voltages of Lithium-Ion Battery Cathodes. **2016**, 120, 1437-9	5

1304	Layered Lithium-Rich Oxide Nanoparticles Doped with Spinel Phase: Acidic Sucrose-Assistant Synthesis and Excellent Performance as Cathode of Lithium Ion Battery. **2016**, 8, 4575-84		99
1303	Monoclinic Li3V2(PO4)3/C nanocrystals co-modified with graphene nanosheets and carbon nanotubes as a three-dimensional-network cathode material for rechargeable lithium-ion batteries. **2016**, 6, 8431-8439		13
1302	Li2ZrO3-coated Li4Ti5O12 with nanoscale interface for high performance lithium-ion batteries. **2016**, 368, 56-62		16
1301	The preparation and role of Li2ZrO3 surface coating LiNi0.5Co0.2Mn0.3O2 as cathode for lithium-ion batteries. **2016**, 361, 150-156		44
1300	Nanocrystalline iron oxide based electroactive materials in lithium ion batteries: the critical role of crystallite size, morphology, and electrode heterostructure on battery relevant electrochemistry. **2016**, 3, 26-40		70
1299	Blockage of ultrafast and directional diffusion of Li atoms on phosphorene with intrinsic defects. **2016**, 8, 4001-6		65
1298	Chemically integrated hierarchical hybrid zinc cobaltate/reduced graphene oxide microspheres as an enhanced lithium-ion battery anode. **2016**, 6, 4914-4924		9
1297	In Situ Potentiodynamic Analysis of the Electrolyte/Silicon Electrodes Interface Reactions--A Sum Frequency Generation Vibrational Spectroscopy Study. *Journal of the American Chemical Society*, **2016**, 138, 726-9	16.4	67
1296	Layer-by-layer assembly modification to prepare firmly bonded Si□graphene composites for high-performance anodes. **2016**, 6, 4835-4842		20
1295	Facile synthesis of a MoO2□Mo2C□ composite and its application as favorable anode material for lithium-ion batteries. **2016**, 307, 552-560		82
1294	Aromatic stabilization of functionalized corannulene cations. **2016**, 18, 11781-91		15
1293	Phenyl-rich silicone oil as a precursor for SiOC anode materials for long-cycle and high-rate lithium ion batteries. **2016**, 4, 2651-2656		66
1292	Controllable construction of 3D-skeleton-carbon coated Na3V2(PO4)3 for high-performance sodium ion battery cathode. **2016**, 20, 11-19		113
1291	Facile fabrication of a nanoporous Si/Cu composite and its application as a high-performance anode in lithium-ion batteries. **2016**, 9, 908-916		64
1290	Poly(diallyldimethylammonium chloride)-assisted synthesis of MoS2/graphene composites with enhanced electrochemical performances for reversible lithium storage. **2016**, 190, 538-547		13
1289	Fabrication of graphene supported SnO2 nanoparticles and their sodium storage properties. **2016**, 166, 292-295		19
1288	Phosphorene ribbons as anode materials with superhigh rate and large capacity for Li-ion batteries. **2016**, 302, 215-222		37
1287	Understanding electrochemical potentials of cathode materials in rechargeable batteries. **2016**, 19, 109-123		573

1286	Conduction below 100 °C in nominal Li6ZnNb4O14. **2016**, 51, 854-860	3
1285	Mesocrystalline coordination polymer as a promising cathode for sodium-ion batteries. **2016**, 52, 1957-60	25
1284	Host Structural Stabilization of Li1.232Mn0.615Ni0.154O2 through K-Doping Attempt: toward Superior Electrochemical Performances. **2016**, 188, 336-343	59
1283	A graphene-like metallic cathode host for long-life and high-loading lithium–sulfur batteries. **2016**, 3, 130-136	355
1282	Controlled solvothermal synthesis and electrochemical performance of LiCoPO4 submicron single crystals as a cathode material for lithium ion batteries. **2016**, 304, 181-188	39
1281	Polyimide Binder: A Facile Way to Improve Safety of Lithium Ion Batteries. **2016**, 187, 113-118	42
1280	Process Investigation of a Solid Carbon-Fueled Solid Oxide Fuel Cell Integrated with a CO2-Permeating Membrane and a Sintering-Resistant Reverse Boudouard Reaction Catalyst. **2016**, 30, 1841-1848	12
1279	Dramatically enhanced reversibility of Li2O in SnO2-based electrodes: the effect of nanostructure on high initial reversible capacity. **2016**, 9, 595-603	257
1278	Effect of magnesium doping on properties of lithium-rich layered oxide cathodes based on a one-step co-precipitation strategy. **2016**, 4, 4941-4951	82
1277	A few-layered Ti3C2 nanosheet/glass fiber composite separator as a lithium polysulphide reservoir for high-performance lithium–sulfur batteries. **2016**, 4, 5993-5998	112
1276	A novel synthesis of gadolinium-doped Li3V2(PO4)3/C with excellent rate capacity and cyclability. **2016**, 6, 28624-28632	9
1275	An effective approach to improve the electrochemical performance of LiNi0.6Co0.2Mn0.2O2 cathode by an MOF-derived coating. **2016**, 4, 5823-5827	77
1274	A methodical approach for fabrication of binder-free Li2S-C composite cathode with high loading of active material for Li-S battery. **2016**, 103, 163-171	42
1273	MnO nanocrystals incorporated in a N-containing carbon matrix for Li ion battery anodes. **2016**, 6, 30445-30453	12
1272	Individually carbon-coated and electrostatic-force-derived graphene-oxide-wrapped lithium titanium oxide nanofibers as anode material for lithium-ion batteries. **2016**, 199, 35-44	25
1271	Hollow carbon sphere/metal oxide nanocomposites anodes for lithium-ion batteries. **2016**, 103, 100-106	24
1270	Performance Enhancement of Silicon Alloy-Based Anodes Using Thermally Treated Poly(amide imide) as a Polymer Binder for High Performance Lithium-Ion Batteries. **2016**, 32, 3300-7	35
1269	Antiperovskite LiOCl Superionic Conductor Films for Solid-State Li-Ion Batteries. **2016**, 3, 1500359	120

1268	Complex hydrides as room-temperature solid electrolytes for rechargeable batteries. **2016**, 122, 1	41
1267	Synthesis and electrochemical characterization of Mg-doped Li-rich Mn-based cathode material. **2016**, 42, 8833-8838	15
1266	Facile fabrication and electrochemical behaviors of Mn:ZnS nanocrystals. **2016**, 672, 571-577	7
1265	Comprehensive Understanding of High Polar Polyacrylonitrile as an Effective Binder for Li-Ion Battery Nano-Si Anodes. **2016**, 8, 8154-61	45
1264	Mildly reduced less defective graphene oxide/sulfur/carbon nanotube composite films for high-performance lithium-sulfur batteries. **2016**, 18, 11104-10	27
1263	Biomass derived fabrication of a novel sea cucumber-like LiMn 2 O 4 /C composite with a hierarchical porous structure as the cathode for lithium-ion batteries. **2016**, 188, 645-652	16
1262	Uniform Ni-rich LiNi0.6Co0.2Mn0.2O2 Porous Microspheres: Facile Designed Synthesis and Their Improved Electrochemical Performance. **2016**, 191, 401-410	68
1261	MoS2 nanosheets grown on amorphous carbon nanotubes for enhanced sodium storage. **2016**, 4, 4375-4379	66
1260	Porous lithium nickel cobalt manganese oxide hierarchical nanosheets as high rate capability cathodes for lithium ion batteries. **2016**, 307, 731-737	18
1259	Designing Hierarchically Nanostructured Conductive Polymer Gels for Electrochemical Energy Storage and Conversion. **2016**, 28, 2466-2477	185
1258	Electrode materials with tailored facets for electrochemical energy storage. **2016**, 1, 272-289	75
1257	Lithium-ion conductivity in Li6Y(BO3)3: a thermally and electrochemically robust solid electrolyte. **2016**, 4, 6972-6979	9
1256	Enhanced Li- and Na-storage in Sb-Graphene nanocomposite anodes. **2016**, 76, 338-343	21
1255	Shutdown-functionalized nonwoven separator with improved thermal and electrochemical properties for lithium-ion batteries. **2016**, 305, 225-232	45
1254	Theoretical study of interactions of a Li(+)(CF3SO2)2N(-) ion pair with CR3(OCR2CR2)nOCR3 (R = H or F). **2016**, 18, 6754-62	8
1253	Structural and electronic properties of AB- and AA-stacking bilayer-graphene intercalated by Li, Na, Ca, B, Al, Si, Ge, Ag, and Au atoms. **2016**, 231-232, 57-63	12
1252	In-situ synthesis of MnO2@CNT microsphere composites with enhanced electrochemical performances for lithium-ion batteries. **2016**, 310, 54-60	49
1251	Natural graphite enhanced the electrochemical performance of Li3V2(PO4)3 cathode material for lithium ion batteries. **2016**, 20, 311-318	15

1250	A gel polymer membrane for lithium-ion oxygen battery. **2016**, 287, 22-27		20
1249	Ultrahigh cycling stability and rate capability of ZnFe2O4@graphene hybrid anode prepared through a facile syn-graphenization strategy. **2016**, 40, 3139-3146		14
1248	Impedance spectroscopic study of the charge transfer resistance at the interface between a LiNi0.5Mn1.5O4 high-voltage cathode film and a LiNbO3 coating film. **2016**, 287, 8-12		29
1247	A single cation or anion dendrimer-based liquid electrolyte. **2016**, 7, 3390-3398		7
1246	Graphene and cobalt phosphide nanowire composite as an anode material for high performance lithium-ion batteries. **2016**, 9, 612-621		88
1245	Silicon/Wolfram Carbide@Graphene composite: enhancing conductivity and structure stability in amorphous-silicon for high lithium storage performance. **2016**, 191, 462-472		29
1244	NaLaTi2O6 nanosheet as a potential anode material for lithium ion batteries. **2016**, 207, 13-17		2
1243	Characteristics of Lithium Ions and Superoxide Anions in EMI-TFSI and Dimethyl Sulfoxide. **2016**, 120, 364-71		12
1242	Potential Application of Metal Dichalcogenides Double-Layered Heterostructures as Anode Materials for Li-Ion Batteries. **2016**, 120, 4779-4788		59
1241	Optimized structure stability and electrochemical performance of LiNi0.8Co0.15Al0.05O2 by sputtering nanoscale ZnO film. **2016**, 309, 20-26		93
1240	Insights on the fundamental lithium storage behavior of all-solid-state lithium batteries containing the LiNi0.8Co0.15Al0.05O2 cathode and sulfide electrolyte. **2016**, 307, 724-730		44
1239	First-Principles Density Functional Theory Modeling of Li Binding: Thermodynamics and Redox Properties of Quinone Derivatives for Lithium-Ion Batteries. *Journal of the American Chemical Society*, **2016**, 138, 2374-82	16.4	142
1238	Porous Silicon□Carbon Composite Materials Engineered by Simultaneous Alkaline Etching for High-Capacity Lithium Storage Anodes. **2016**, 196, 197-205		30
1237	Low-Cost Al2O3 Coating Layer As a Preformed SEI on Natural Graphite Powder To Improve Coulombic Efficiency and High-Rate Cycling Stability of Lithium-Ion Batteries. **2016**, 8, 6512-9		61
1236	Biochemistry-directed hollow porous microspheres: bottom-up self-assembled polyanion-based cathodes for sodium ion batteries. **2016**, 8, 8178-88		49
1235	Bundled and densified carbon nanotubes (CNT) fabrics as flexible ultra-light weight Li-ion battery anode current collectors. **2016**, 312, 109-115		42
1234	NMR Determination of the Relative Binding Affinity of Crown Ethers for Manganese Cations in Aprotic Nonaqueous Lithium Electrolyte Solutions. **2016**, 120, 3677-3683		6
1233	Inorganic and organic hybrid solid electrolytes for lithium-ion batteries. **2016**, 18, 4236-4258		79

1232	Influence of Mg2+ doping on the structure and electrochemical performances of layered LiNi0.6Co0.2-Mn0.2Mg O2 cathode materials. **2016**, 671, 479-485	43
1231	TiNb2O7/graphene composites as high-rate anode materials for lithium/sodium ion batteries. **2016**, 4, 4242-4251	112
1230	In situ hydrodynamic spectroscopy for structure characterization of porous energy storage electrodes. **2016**, 15, 570-5	65
1229	Synthesis of CdSnSnO2@C heterocomposite anode with superior electrochemical performance. **2016**, 166, 210-214	4
1228	High performance inverse opal Li-ion battery with paired intercalation and conversion mode electrodes. **2016**, 4, 4448-4456	32
1227	Effect of surface fluorine substitution on high voltage electrochemical performances of layered LiNi0.5Co0.2Mn0.3O2 cathode materials. **2016**, 371, 172-179	29
1226	Unraveling the Origin of Instability in Ni-Rich LiNi1xCoxMnxO2 (NCM) Cathode Materials. **2016**, 120, 6383-6393	111
1225	Structure Conductivity Relationships of Block Copolymer Membranes Based on Hydrated Protic Polymerized Ionic Liquids: Effect of Domain Spacing. **2016**, 49, 2216-2223	34
1224	Tris(pentafluorophenyl)silane as an Electrolyte Additive for 5 V LiNi0.5Mn1.5O4Positive Electrode. **2016**, 163, A898-A903	20
1223	Microwave-Assisted Synthesis of Silver Vanadium Phosphorus Oxide, Ag2VO2PO4: Crystallite Size Control and Impact on Electrochemistry. **2016**, 28, 2191-2199	10
1222	Electrospun Lotus Root-like CoMoO4@Graphene Nanofibers as High-Performance Anode for Lithium Ion Batteries. **2016**, 196, 125-130	53
1221	High-capacity organic cathode active materials of 2,2?-bis-p-benzoquinone derivatives for rechargeable batteries. **2016**, 4, 5457-5466	56
1220	Fabrication and electrochemical properties of LiCo1-xRuxO2 cathode materials for Li-ion battery. **2016**, 671, 24-33	13
1219	Stability of Solid Electrolyte Interphase Components on Lithium Metal and Reactive Anode Material Surfaces. **2016**, 120, 6302-6313	111
1218	Characterisation of the solid electrolyte interface during lithiation/delithiation of germanium in an ionic liquid. **2016**, 18, 5630-7	29
1217	Crystallographic origin of cycle decay of the high-voltage LiNi0.5Mn1.5O4 spinel lithium-ion battery electrode. **2016**, 18, 17183-9	14
1216	Ether and siloxane functionalized ionic liquids and their mixtures as electrolyte for lithium-ion batteries. **2016**, 18, 16116-26	20
1215	A high-voltage poly(methylethyl cyanoacrylate) composite polymer electrolyte for 5 V lithium batteries. **2016**, 4, 5191-5197	65

1214	First-principles design of a borocarbonitride-based anode for superior performance in sodium-ion batteries and capacitors. **2016**, 4, 5517-5527	22
1213	Li3V2(PO4)3 encapsulated flexible free-standing nanofabric cathodes for fast charging and long life-cycle lithium-ion batteries. **2016**, 8, 7408-15	43
1212	Long-Life, High-Rate Lithium-Organic Batteries Based on Naphthoquinone Derivatives. **2016**, 28, 2408-2416	89
1211	Sodium-Oxygen Battery: Steps Toward Reality. **2016**, 7, 1161-6	78
1210	Towards high potential and ultra long-life cathodes for sodium ion batteries: freestanding 3D hybrid foams of Na7V4(P2O7)4(PO4) and Na7V3(P2O7)4@biomass-derived porous carbon. **2016**, 4, 5719-5729	62
1209	Reaction mechanism studies towards effective fabrication of lithium-rich anti-perovskites Li3OX (X= Cl, Br). **2016**, 284, 14-19	58
1208	High performance porous MnO@C composite anode materials for lithium-ion batteries. **2016**, 188, 793-800	46
1207	Theoretical investigation of Chevrel phase materials for cathodes accommodating Ca2+ ions. **2016**, 306, 431-436	47
1206	Binder-free graphene as an advanced anode for lithium batteries. **2016**, 4, 6886-6895	67
1205	Self-assembly of ultrathin mesoporous CoMoO4 nanosheet networks on flexible carbon fabric as a binder-free anode for lithium-ion batteries. **2016**, 40, 2259-2267	43
1204	Electrospun nanofibers as a platform for advanced secondary batteries: a comprehensive review. **2016**, 4, 703-750	288
1203	Characteristics of an ionic liquid electrolyte for sodium-ion batteries. **2016**, 303, 203-207	77
1202	Predicting electrochemical properties and ionic diffusion in Na2+2xMn2□(SO4)3: crafting a promising high voltage cathode material. **2016**, 4, 451-457	18
1201	Effect of PEDOT:PSS Coating on Manganese Oxide Nanowires for Lithium Ion Battery Anodes. **2016**, 187, 340-347	35
1200	Strong contribution of pore morphology to the high-rate electrochemical performance of lithium-ion batteries. **2016**, 52, 803-6	17
1199	Nano-energy system coupling model and failure characterization of lithium ion battery electrode in electric energy vehicles. **2016**, 54, 1250-1261	16
1198	In situ synthesis of carbon incorporated TiO2 with long-term performance as anode for lithium-ion batteries. **2016**, 302, 233-239	53
1197	Fabrication of densely packed LiNi0.5Mn1.5O4 cathode material with excellent long-term cycleability for high-voltage lithium ion batteries. **2016**, 304, 15-23	35

1196	One-dimensional metal oxide-carbon hybrid nanostructures for electrochemical energy storage. **2016**, 1, 27-40	102
1195	SnSex flowerlike composites as anode materials for sodium ion batteries. **2016**, 162, 169-172	25
1194	Spontaneous reaction between an uncharged lithium iron silicate cathode and a LiPF6-based electrolyte. **2016**, 52, 190-3	14
1193	A high performance ceramic-polymer separator for lithium batteries. **2016**, 301, 194-198	43
1192	Vinyl ethylene carbonate as an electrolyte additive for high-voltage LiNi0.4Mn0.4Co0.2O2/graphite Li-ion batteries. **2016**, 22, 201-208	10
1191	Lithium intercalation into polyoxomolybdate (NH4)6[NiMo9O32] as the cathode material of lithium battery. **2016**, 285, 83-90	5
1190	Models of Ion Solvation Thermodynamics in Ethylene Carbonate and Propylene Carbonate. **2016**, 120, 1497-508	25
1189	Mesoporous Germanium Anode Materials for Lithium-Ion Battery with Exceptional Cycling Stability in Wide Temperature Range. **2017**, 13, 1603045	41
1188	Si-, Ge-, Sn-Based Anode Materials for Lithium-Ion Batteries: From Structure Design to Electrochemical Performance. **2017**, 1, 1600037	174
1187	Introduction and Literature Background. **2017**, 1-37	1
1186	A reduced graphene oxide-encapsulated phosphorus/carbon composite as a promising anode material for high-performance sodium-ion batteries. **2017**, 5, 3683-3690	46
1185	Eco-friendly process toward collector- and binder-free, high-energy density electrodes for lithium-ion batteries. **2017**, 21, 1407-1416	8
1184	Controllable graphene incorporation and defect engineering in MoS2-TiO2 based composites: Towards high-performance lithium-ion batteries anode materials. **2017**, 33, 247-256	114
1183	Unlocking the potential of SnS: Transition metal catalyzed utilization of reversible conversion and alloying reactions. **2017**, 7, 41015	18
1182	Schwarzer Phosphor neu entdeckt: vom Volumenmaterial zu Monoschichten. **2017**, 129, 8164-8185	56
1181	Black Phosphorus Rediscovered: From Bulk Material to Monolayers. **2017**, 56, 8052-8072	315
1180	Aqueous Electrochemical Energy Storage with a Mediator-Ion Solid Electrolyte. **2017**, 7, 1602454	21
1179	A study on optimal pore development of modified commercial activated carbons for electrode materials of supercapacitors. **2017**, 415, 61-66	21

1178	Enhanced efficiency of solid-state NMR investigations of energy materials using an external automatic tuning/matching (eATM) robot. **2017**, 275, 127-136	35
1177	Ionic liquid-based electrolyte with dual-functional LiDFOB additive toward high-performance LiMn2O4 batteries. **2017**, 23, 1399-1406	11
1176	Graphene-based Composites for Electrochemical Energy Storage. **2017**,	9
1175	Carbon-Coated FeO/VO Hollow Microboxes Derived from Metal-Organic Frameworks as a High-Performance Anode Material for Lithium-Ion Batteries. **2017**, 9, 3757-3765	67
1174	Highly-branched cross-linked poly(ethylene oxide) with enhanced ionic conductivity. **2017**, 111, 1-8	27
1173	Measurement of interfacial thermal conductance in Lithium ion batteries. **2017**, 343, 431-436	16
1172	High-voltage and free-standing poly(propylene carbonate)/Li6.75La3Zr1.75Ta0.25O12 composite solid electrolyte for wide temperature range and flexible solid lithium ion battery. **2017**, 5, 4940-4948	284
1171	[Co(salen)] derived Co/Co3O4 nanoparticle@carbon matrix as high-performance electrode for energy storage applications. **2017**, 344, 103-110	33
1170	Core□shell-structured Li3V2(PO4)3□iVOPO4 nanocomposites cathode for high-rate and long-life lithium-ion batteries. **2017**, 7, 3101-3107	8
1169	Design of FeS2@rGO composite with enhanced rate and cyclic performances for sodium ion batteries. **2017**, 230, 1-9	67
1168	Fast formation cycling for lithium ion batteries. **2017**, 342, 846-852	75
1167	Designing strategies to tune reduction potential of organic molecules for sustainable high capacity battery application. **2017**, 5, 4430-4454	41
1166	Heterometallic molecular precursors for a lithium-iron oxide material: synthesis, solid state structure, solution and gas-phase behaviour, and thermal decomposition. **2017**, 46, 5644-5649	16
1165	High performance lithium metal anode: Progress and prospects. **2017**, 7, 115-129	119
1164	Complex Hollow Nanostructures: Synthesis and Energy-Related Applications. **2017**, 29, 1604563	529
1163	Tungsten Disulfide Catalysts Supported on a Carbon Cloth Interlayer for High Performance Li□S Battery. **2017**, 7, 1602567	233
1162	A three-dimensional core-shell nanostructured composite of polypyrrole wrapped MnO(2)/reduced graphene oxide/carbon nanotube for high performance lithium ion batteries. **2017**, 493, 241-248	31
1161	Enhanced Rate-Capability and Cycling-Stability of 5 V SiO2- and Polyimide-Coated Cation Ordered LiNi0.5Mn1.5O4 Lithium-Ion Battery Positive Electrodes. **2017**, 121, 3680-3689	37

1160	Electrochemical properties of an aluminum anode in an ionic liquid electrolyte for rechargeable aluminum-ion batteries. **2017**, 19, 8653-8656		51
1159	Influence of the metal-induced crystallization on the structural and electrochemical properties of sputtered LiCoO 2 thin films. **2017**, 641, 53-58		4
1158	Toward Enhanced Electronic and Ionic Conductivity in Olivine LiCoPO4 Thin Film Electrode Material for 5 V Lithium Batteries: Effect of LiCo2P3O10 Impurity Phase. **2017**, 7, 1602321		8
1157	Preparation and performance characterization of AlF 3 as interface stabilizer coated Li 1.24 Ni 0.12 Co 0.12 Mn 0.56 O 2 cathode for lithium-ion batteries. **2017**, 406, 21-29		20
1156	Brain-like manganese monoxide microspheres as anode materials for lithium ion battery. **2017**, 677, 167-171		7
1155	Synthesis of NiO Nano Octahedron Aggregates as High-Performance Anode Materials for Lithium Ion Batteries. **2017**, 231, 272-278		61
1154	Nanoparticle/MOF composites: preparations and applications. **2017**, 4, 557-569		174
1153	Bubble-Sheet-Like Interface Design with an Ultrastable Solid Electrolyte Layer for High-Performance Dual-Ion Batteries. **2017**, 29, 1606805		109
1152	High-capacity cobalt-based coordination polymer nanorods and their redox chemistry triggered by delocalization of electron spins. **2017**, 7, 195-202		23
1151	Composite sodium p-toluene sulfonate□polypyrrole□ron anode for a lithium-ion battery. **2017**, 134,		7
1150	Tailoring Anisotropic Li-Ion Transport Tunnels on Orthogonally Arranged Li-Rich Layered Oxide Nanoplates Toward High-Performance Li-Ion Batteries. **2017**, 17, 1670-1677		99
1149	Sustainable Energy Source for Wearable Electronics Based on Multilayer Elastomeric Triboelectric Nanogenerators. **2017**, 7, 1602832		104
1148	Phosphorus-Based Alloy Materials for Advanced Potassium-Ion Battery Anode. *Journal of the American Chemical Society*, **2017**, 139, 3316-3319	16.4	629
1147	Direct Investigation of Mg Intercalation into the Orthorhombic V2O5 Cathode Using Atomic-Resolution Transmission Electron Microscopy. **2017**, 29, 2218-2226		40
1146	Biogel-Derived Polycrystalline MnO Spheres/S-Doped Carbon Composites with Enhanced Performance as Anode Materials for Lithium-Ion Batteries. **2017**, 4, 1411-1418		10
1145	Fabrication of TiO2@carbon core□shell nanosheets for advanced lithium-ion batteries with excellent cyclability. **2017**, 5, 6047-6051		24
1144	Hierarchical porous NiCoO nanosheet arrays directly grown on carbon cloth with superior lithium storage performance. **2017**, 46, 4717-4723		31
1143	Sheath/Core Hybrid FeCO3/Carbon Nanofibers as Anode Materials for Superior Cycling Stability and Rate Performance. **2017**, 4, 1450-1456		7

1142	In Situ Atomic-Scale Observation of Electrochemical Delithiation Induced Structure Evolution of LiCoO Cathode in a Working All-Solid-State Battery. *Journal of the American Chemical Society*, **2017**, 139, 4274-4277	16.4	109
1141	2D layered mesoporous MoO 2 /rGO composites for high performance anode materials in lithium-ion battery. **2017**, 246, 14-23		20
1140	An electrochemical and structural study of highly uniform tin oxide nanowires fabricated by a novel, scalable solvoplasma technique as anode material for sodium ion batteries. **2017**, 347, 201-209		13
1139	Facet-Dependent Thermal Instability in LiCoO. **2017**, 17, 2165-2171		73
1138	Solar synthesized tin oxide nanoparticles dispersed on graphene wrapped carbon nanotubes as a Li ion battery anode material with improved stability. **2017**, 7, 13789-13797		12
1137	Enabling effective polysulfide trapping and high sulfur loading via a pyrrole modified graphene foam host for advanced lithium□sulfur batteries. **2017**, 5, 7309-7315		47
1136	The staging mechanism of AlCl intercalation in a graphite electrode for an aluminium-ion battery. **2017**, 19, 7980-7989		104
1135	Charge□Discharge with Rocking-Chair-Type Li+ Migration Characteristics in a Zwitterionic Radical Copolymer Composed of TEMPO and Trifluoromethanesulfonylimide with Carbonate Electrolytes for a High-Rate Li-Ion Battery. **2017**, 50, 1950-1958		28
1134	Urea-Assisted Room Temperature Stabilized Metastable □NiMoO: Experimental and Theoretical Insights into its Unique Bifunctional Activity toward Oxygen Evolution and Supercapacitor. **2017**, 9, 9640-9653		86
1133	Comparative surface analysis study of the solid electrolyte interphase formation on graphite anodes in lithium-ion batteries depending on the electrolyte composition. **2017**, 49, 361-369		19
1132	First-principles investigation of adsorption and diffusion of Li on doped silicenes: Prospective materials for lithium-ion batteries. **2017**, 192, 125-130		13
1131	Polyvinylidene Difluoride□Polyethyleneoxide Blends for Electrospun Separators in Li-Ion Batteries. **2017**, 164, A6431-A6439		21
1130	Cooperatively assembled, nitrogen-doped, ordered mesoporous carbon/iron oxide nanocomposites for low-cost, long cycle life sodium-ion batteries. **2017**, 116, 286-293		35
1129	Fabrication of C/SiO1.5 nanospheres by emulsion polymerization of twin monomer for high-performance lithium-ion battery anode. **2017**, 701, 487-493		3
1128	Learning from Electrochemical Data: Simple Evaluation and Classification of LiMO2-type-based Positive Electrodes for Li-Ion Batteries. **2017**, 5, 1670-1679		70
1127	Facile synthesis of ultrasmall Si particles embedded in carbon framework using Si-carbon integration strategy with superior lithium ion storage performance. **2017**, 319, 1-8		28
1126	Aluminium-ion batteries: developments and challenges. **2017**, 5, 6347-6367		204
1125	Enhancing sampling in atomistic simulations of solid-state materials for batteries: a focus on olivine (hbox {NaFePO}_4). **2017**, 136, 1		8

1124	High-Performance Anode of Sodium Ion Battery from Polyacrylonitrile/Humic Acid Composite Electrospun Carbon Fibers. **2017**, 232, 348-356	28
1123	Reviving the lithium metal anode for high-energy batteries. **2017**, 12, 194-206	3302
1122	Enhanced Li+ conduction in perovskite Li3xLa2/3□?1/3□xTiO3 solid-electrolytes via microstructural engineering. **2017**, 5, 6257-6262	70
1121	Fabrication of surface skinless membranes of epoxy resin-based mesoporous monoliths toward advanced separators for lithium ion batteries. **2017**, 5, 6866-6873	22
1120	Engineering Diffusivity and Operating Voltage in Lithium Iron Phosphate through Transition-Metal Doping. **2017**, 7,	6
1119	Synthesis of Li5+xLa3HfxNb2-xO12 (x = 0.2□) ceramics with cubic garnet-type structure. **2017**, 194, 138-141	10
1118	One-pot route for uniform anchoring of TiO2 nanoparticles on reduced graphene oxides and their anode performance for lithium-ion batteries. **2017**, 125, 66-78	21
1117	Boehmite-based Microcapsules as Flame-retardants for Lithium-ion Batteries. **2017**, 228, 597-603	15
1116	Appraisal of carbon-coated Li4Ti5O12 acanthospheres from optimized two-step hydrothermal synthesis as a superior anode for sodium-ion batteries. **2017**, 705, 164-175	16
1115	Nanostructured Conductive Polymer Gels as a General Framework Material To Improve Electrochemical Performance of Cathode Materials in Li-Ion Batteries. **2017**, 17, 1906-1914	107
1114	Recent innovative configurations in high-energy lithium□ulfur batteries. **2017**, 5, 5222-5234	104
1113	Valence Electronic Structure of Li2O2, Li2O, Li2CO3, and LiOH Probed by Soft X-ray Emission Spectroscopy. **2017**, 121, 5460-5466	11
1112	Lithium battery chemistries enabled by solid-state electrolytes. **2017**, 2,	2006
1111	Solvent extraction fractionation of Li-ion battery leachate containing Li, Ni, and Co. **2017**, 179, 274-282	57
1110	Electrochemical Zinc Intercalation in Lithium Vanadium Oxide: A High-Capacity Zinc-Ion Battery Cathode. **2017**, 29, 1684-1694	342
1109	Correlation of Electrolyte Volume and Electrochemical Performance in Lithium-Ion Pouch Cells with Graphite Anodes and NMC532 Cathodes. **2017**, 164, A1195-A1202	41
1108	Emerging Prototype Sodium-Ion Full Cells with Nanostructured Electrode Materials. **2017**, 13, 1604181	88
1107	Magnesium hydride as negative electrode active material in lithium cells: A review. **2017**, 3, 53-59	11

1106	Effect of quenching method on Li ion conductivity of Li5La3Bi2O12 solid state electrolyte. **2017**, 304, 71-74	11
1105	Sulfonated poly(phenylene oxide)/Ti3+/TiO2 nanotube arrays membrane/electrode with high performances for lithium ion battery. **2017**, 23, 3037-3044	6
1104	Unveiling two-dimensional TiS2 as an insertion host for the construction of high energy Li-ion capacitors. **2017**, 5, 9177-9181	62
1103	An Efficient Route to Polymeric Electrolyte Membranes with Interparticle Chain Microstructure Toward High-Temperature Lithium-Ion Batteries. **2017**, 4, 1601236	21
1102	The Southwest UK Burns Network (SWUK) experience of electronic cigarette explosions and review of literature. **2017**, 43, e1-e6	11
1101	Improving the electrochemical performance of Na 3 V 2 (PO 4) 3 cathode in sodium ion batteries through Ce/V substitution based on rational design and synthesis optimization. **2017**, 238, 288-297	44
1100	Polymeric materials for lithium-ion cells. **2017**, 28, 1528-1538	13
1099	Nickel metal-organic framework nanoparticles as electrode materials for Li-ion batteries and supercapacitors. **2017**, 21, 2415-2423	44
1098	Robust Polymer Electrolyte Membranes with High Ambient-Temperature Lithium-Ion Conductivity via Polymerization-Induced Microphase Separation. **2017**, 9, 14561-14565	65
1097	Battery charge and health state monitoring via ultrasonic guided-wave-based methods using built-in piezoelectric transducers. **2017**,	4
1096	Dispersion-Assembly Approach to Synthesize Three-Dimensional Graphene/Polymer Composite Aerogel as a Powerful Organic Cathode for Rechargeable Li and Na Batteries. **2017**, 9, 15549-15556	60
1095	Atomic level changes during capacity fade in highly oriented thin films of cathode material LiCoPO4. **2017**, 5, 9329-9338	20
1094	Sustainable Potassium-Ion Battery Anodes Derived from Waste-Tire Rubber. **2017**, 164, A1234-A1238	75
1093	Synergistic effect induced ultrafine SnO2/graphene nanocomposite as an advanced lithium/sodium-ion batteries anode. **2017**, 5, 10027-10038	136
1092	Conservation laws and path-independent integrals in mechanical-diffusion-electrochemical reaction coupling system. **2017**, 104, 57-70	12
1091	A Flexible Solid Composite Electrolyte with Vertically Aligned and Connected Ion-Conducting Nanoparticles for Lithium Batteries. **2017**, 17, 3182-3187	278
1090	Synthesis and Ion Conductivity of Li7La3Nb2O13Ceramics with Cubic Garnet-Type Structure. **2017**, 164, A1192-A1194	4
1089	Bio-degradable zinc-ion battery based on a prussian blue analogue cathode and a bio-ionic liquid-based electrolyte. **2017**, 21, 2021-2027	80

1088	Modulating Ion Transport and Self-Assembly of Polymer Electrolytes via End-Group Chemistry. **2017**, 50, 3224-3233	35
1087	Methyl-functionalized MoS nanosheets with reduced lattice breathing for enhanced pseudocapacitive sodium storage. **2017**, 19, 13696-13702	50
1086	Atomic-Scale Structure-Property Relationships in Lithium Ion Battery Electrode Materials. **2017**, 47, 175-198	21
1085	Investigating Li2NiO2Ii2CuO2 Solid Solutions as High-Capacity Cathode Materials for Li-Ion Batteries. **2017**, 121, 11100-11107	13
1084	Metal oxide-embedded porous carbon nanoparticles as high-performance anode materials for lithium ion batteries. **2017**, 23, 3255-3263	2
1083	Pure and Co doped CeO2 nanostructure electrodes with enhanced electrochemical performance for energy storage applications. **2017**, 43, 10494-10501	26
1082	Structural, electrical and dielectric properties of nanocrystalline LiMgBO3 particles synthesized by Pechini process. **2017**, 718, 459-470	11
1081	A nano-silica modified polyimide nanofiber separator with enhanced thermal and wetting properties for high safety lithium-ion batteries. **2017**, 537, 248-254	113
1080	Formation and Inhibition of Metallic Lithium Microstructures in Lithium Batteries Driven by Chemical Crossover. **2017**, 11, 5853-5863	101
1079	High areal capacity of Li-S batteries enabled by freestanding CNF/rGO electrode with high loading of lithium polysulfide. **2017**, 241, 406-413	35
1078	In Situ Monitoring of Gravimetric and Viscoelastic Changes in 2D Intercalation Electrodes. **2017**, 2, 1407-1415	48
1077	Atomic-level energy storage mechanism of cobalt hydroxide electrode for pseudocapacitors. **2017**, 8, 15194	186
1076	Using soft x-ray absorption spectroscopy to characterize electrode/electrolyte interfaces in-situ and operando. **2017**, 221, 2-9	14
1075	Enabling High-Areal-Capacity Lithium-Sulfur Batteries: Designing Anisotropic and Low-Tortuosity Porous Architectures. **2017**, 11, 4801-4807	113
1074	Transparent flexible lithium ion conducting solid polymer electrolyte. **2017**, 5, 11152-11162	57
1073	Recent Progress in the Design of Advanced Cathode Materials and Battery Models for High-Performance Lithium-X (X = O , S, Se, Te, I , Br) Batteries. **2017**, 29, 1606454	194
1072	High-Performance Aqueous Rechargeable Li-Ni Battery Based on Ni(OH)2/NiOOH Redox Couple with High Voltage. **2017**, 7, 1700155	30
1071	Rational design of mesoporous LiFePO4@C nanofibers as cathode materials for energy storage. **2017**, 43, 10201-10206	11

1070	Highly Conductive, Lightweight, Low-Tortuosity Carbon Frameworks as Ultrathick 3D Current Collectors. **2017**, 7, 1700595	156
1069	A Computational Study of a Single-Walled Carbon-Nanotube-Based Ultrafast High-Capacity Aluminum Battery. **2017**, 12, 1944-1951	16
1068	Studies on stability and capacity for long-life cycle performance of Li(Ni 0.5 Co 0.2 Mn 0.3)O 2 by Mo modification for lithium-ion battery. **2017**, 358, 1-12	99
1067	Synergistic effect of 3D electrode architecture and fluorine doping of Li 1.2 Ni 0.15 Mn 0.55 Co 0.1 O 2 for high energy density lithium-ion batteries. **2017**, 356, 115-123	32
1066	Ultrathin Nanoribbons of in Situ Carbon-Coated VO□HO for High-Energy and Long-Life Li-Ion Batteries: Synthesis, Electrochemical Performance, and Charge-Discharge Behavior. **2017**, 9, 17002-17012	38
1065	Preparation and properties of LixLa0.5TiO3 perovskite oxide electrolytes. **2017**, 100, 4153-4158	5
1064	Fabrication of silicon nanowires based on-chip micro-supercapacitor. **2017**, 678, 46-50	28
1063	Application of Galvanostatic Intermittent Titration Technique to Investigate Phase Transformation of LiFePO4 Nanoparticles. **2017**, 241, 132-140	7
1062	Mesoporous Silicon Anodes by Using Polybenzimidazole Derived Pyrrolic N-Enriched Carbon toward High-Energy Li-Ion Batteries. **2017**, 2, 1279-1287	90
1061	TiC MXene-Derived Sodium/Potassium Titanate Nanoribbons for High-Performance Sodium/Potassium Ion Batteries with Enhanced Capacities. **2017**, 11, 4792-4800	412
1060	Immersion-plated Cu6Sn5/Sn composite film anode for lithium ion battery. **2017**, 52, 6020-6033	7
1059	Vertical aligned V2O5 nanoneedle arrays grown on Ti substrate as binder-free cathode for lithium-ion batteries. **2017**, 23, 2961-2967	4
1058	Work function modifications of graphite surface via oxygen plasma treatment. **2017**, 419, 439-446	21
1057	Marine algae inspired pre-treated SnO 2 nanorods bundle as negative electrode for Li-ion capacitor and battery: An approach beyond intercalation. **2017**, 324, 26-34	44
1056	Mechanisms for electrochemical performance enhancement by the salt-type electrolyte additive, lithium difluoro(oxalato)borate, in high-voltage lithium-ion batteries. **2017**, 357, 97-106	85
1055	Hierarchical porous flower-like TiO2-B constructed by thin nanosheets for efficient lithium storage. **2017**, 201, 93-96	13
1054	Multi-scale 3D investigations of a commercial 18650 Li-ion battery with correlative electron- and X-ray microscopy. **2017**, 357, 77-86	35
1053	Solid-State Lithium Metal Batteries Promoted by Nanotechnology: Progress and Prospects. **2017**, 2, 1385-1394	259

1052	In situ Visualization of State-of-Charge Heterogeneity within a LiCoO2 Particle that Evolves upon Cycling at Different Rates. **2017**, 2, 1240-1245	115
1051	High Voltage LiNi0.5Mn0.3Co0.2O2/Graphite Cell Cycled at 4.6 V with a FEC/HFDEC-Based Electrolyte. **2017**, 7, 1700109	71
1050	Improved electrochemical performances derived from synergistic titanium dioxide and iron titanate porous nanohybrids serving as lithium-ion battery anodes. **2017**, 714, 583-592	7
1049	Hexagonal BC3 Electrode for a High-Voltage Al-Ion Battery. **2017**, 121, 9748-9756	27
1048	Thermal, Physical, and Electrochemical Properties of Li[N(SO2F)2]-[1-Ethyl-3-methylimidazolium][N(SO2F)2] Ionic Liquid Electrolytes for Li Secondary Batteries Operated at Room and Intermediate Temperatures. **2017**, 121, 9209-9219	22
1047	High-voltage positive electrode materials for lithium-ion batteries. **2017**, 46, 3006-3059	700
1046	Advances and challenges of nanostructured electrodes for Li–Se batteries. **2017**, 5, 10110-10126	75
1045	Influence of Vinylene Carbonate Additive on the Li4Ti5O12Electrode/Electrolyte Interface for Lithium-Ion Batteries. **2017**, 164, A1314-A1320	18
1044	Improving the structural stability of Li-rich cathode materials via reservation of cations in the Li-slab for Li-ion batteries. **2017**, 10, 4201-4209	43
1043	Nanostructured layered vanadium oxide as cathode for high-performance sodium-ion batteries: a perspective. **2017**, 7, 152-165	27
1042	Interactions at the electrode-electrolyte interfaces in batteries studied by quasi-in-situ soft x-ray absorption spectroscopy. **2017**, 221, 58-64	4
1041	A density functional theory study on the thermodynamic and dynamic properties of anthraquinone analogue cathode materials for rechargeable lithium ion batteries. **2017**, 19, 12480-12489	19
1040	Novel Heterogeneous Hybrid of Yolk–Shell CuO@CuFe2O4: Facile Synthesis and Enhanced Lithium-Storage Performance. **2017**, 4, 2068-2074	11
1039	Electrochemomechanical degradation of high-capacity battery electrode materials. **2017**, 89, 479-521	115
1038	Building an Electronic Bridge via Ag Decoration To Enhance Kinetics of Iron Fluoride Cathode in Lithium-Ion Batteries. **2017**, 9, 19852-19860	37
1037	Sulfur Vapor-Infiltrated 3D Carbon Nanotube Foam for Binder-Free High Areal Capacity Lithium-Sulfur Battery Composite Cathodes. **2017**, 11, 4877-4884	193
1036	Graphene membrane encapsulated Co3O4 nanotubes with superior capacity and stability as anode materials for lithium ion batteries. **2017**, 82, 75-84	8
1035	In situ coating of graphene-like sheets on Li4Ti5O12 particles for lithium-ion batteries. **2017**, 230, 508-513	10

1034	Irregular micro-sized Li1.2Mn0.54Ni0.13Co0.13O2 particles as cathode material with a high volumetric capacity for Li-ion batteries. **2017**, 695, 2951-2958	18
1033	Co3O4 Nanospheres Embedded in a Nitrogen-Doped Carbon Framework: An Electrode with Fast Surface-Controlled Redox Kinetics for Lithium Storage. **2017**, 2, 52-59	51
1032	Novel Preparation of N-Doped SnO Nanoparticles via Laser-Assisted Pyrolysis: Demonstration of Exceptional Lithium Storage Properties. **2017**, 29, 1603286	109
1031	Electrochemical Stiffness Changes in Lithium Manganese Oxide Electrodes. **2017**, 7, 1601778	18
1030	Energy conversion technologies towards self-powered electrochemical energy storage systems: the state of the art and perspectives. **2017**, 5, 1873-1894	88
1029	Graphene-modified copper chromate as the anode of ultrafast rechargeable Li-ion batteries. **2017**, 52, 2131-2141	3
1028	Atomically thin Co 3 O 4 nanosheet-coated stainless steel mesh with enhanced capacitive Na + storage for high-performance sodium-ion batteries. **2017**, 4, 015022	36
1027	Design and Demonstration of Three-Electrode Pouch Cells for Lithium-Ion Batteries. **2017**, 164, A1755-A1764	36
1026	On the Electrochemical Properties and Interphase Composition of Graphite: PVdF-HFP Electrodes in Dependence of Binder Content. **2017**, 164, A1765-A1772	13
1025	Different Shades of Li4Ti5O12 Composites: The Impact of the Binder on Interface Layer Formation. **2017**, 4, 2683-2692	12
1024	Spinel-embedded lithium-rich oxide composites for Li-ion batteries. **2017**, 360, 453-459	17
1023	Challenges and Perspectives for NASICON-Type Electrode Materials for Advanced Sodium-Ion Batteries. **2017**, 29, 1700431	346
1022	A Porphyrin Complex as a Self-Conditioned Electrode Material for High-Performance Energy Storage. **2017**, 129, 10477-10482	21
1021	Large-Scale Batteries for Green Energy Society. **2017**, 175-195	2
1020	Flexible and Free-Standing Organic/Carbon Nanotubes Hybrid Films as Cathode for Rechargeable Lithium-Ion Batteries. **2017**, 121, 14498-14506	40
1019	Magneto-ionic phase control in a quasi-layered donor/acceptor metal-organic framework by means of a Li-ion battery system. **2017**, 56, 060307	14
1018	A Porphyrin Complex as a Self-Conditioned Electrode Material for High-Performance Energy Storage. **2017**, 56, 10341-10346	57
1017	Synthesis of one-dimensional graphene-encapsulated TiO2 nanofibers with enhanced lithium storage capacity for lithium-ion batteries. **2017**, 21, 2313-2320	4

1016	LiFePO4 composites decorated with nitrogen-doped carbon as superior cathode materials for lithium-ion batteries. **2017**, 23, 3295-3302	6
1015	Improving the electrochemistry performance of layer LiNi0.5Mn0.3Co0.2O2 material at 4.5 V cutoff potential using lithium metaborate. **2017**, 243, 105-111	35
1014	Transmission electron microscopy studies of structural degradation behavior of LiNi0.6Co0.2Mn0.2O2 cathode materials. **2017**, 52, 8377-8390	1
1013	Nanostructured Na-ion and Li-ion anodes for battery application: A comparative overview. **2017**, 10, 3942-3969	63
1012	State of the Art and Future Research Needs for Multiscale Analysis of Li-Ion Cells. **2017**, 14,	20
1011	Facile mass production of nanoporous SnO nanosheets as anode materials for high performance lithium-ion batteries. **2017**, 503, 205-213	29
1010	Nanomaterials for lithium-ion batteries and hydrogen energy. **2017**, 89, 1185-1194	26
1009	Integrated Configuration Design for Ultrafast Rechargeable Dual-Ion Battery. **2017**, 7, 1700913	76
1008	Amorphous MnO2 as Cathode Material for Sodium-ion Batteries. **2017**, 35, 1294-1298	19
1007	Comparable Ionicity of the Solutions of Aprotic and Protic Ionic Liquids by Anion Substitution. **2017**, 46, 1315-1327	3
1006	Amorphous titanium oxide passivated lithium titanium phosphate electrode for high stable aqueous lithium ion batteries with oxygen tolerance. **2017**, 246, 720-729	21
1005	A low-cost, environment-friendly lignin-polyvinyl alcohol nanofiber separator using a water-based method for safer and faster lithium-ion batteries. **2017**, 223, 84-90	42
1004	Prussian Blue Nanocubes with an Open Framework Structure Coated with PEDOT as High-Capacity Cathodes for Lithium-Sulfur Batteries. **2017**, 29, 1700587	133
1003	Recent Progress in Graphite Intercalation Compounds for Rechargeable Metal (Li, Na, K, Al)-Ion Batteries. **2017**, 4, 1700146	276
1002	Pseudocapacitive Li+ intercalation in ZnO/ZnO@C composites enables high-rate lithium-ion storage and stable cyclability. **2017**, 43, 11998-12004	20
1001	Reduced-Graphene Oxide/Poly(acrylic acid) Aerogels as a Three-Dimensional Replacement for Metal-Foil Current Collectors in Lithium-Ion Batteries. **2017**, 9, 22641-22651	21
1000	Exploring the Mechanism of Spontaneous and Lithium-Assisted Graphitic Phase Formation in SiC Nanocrystallites of a High Capacity Li-Ion Battery Anode. **2017**, 121, 15106-15113	10
999	The Unrecognized Epidemic of Electronic Cigarette Burns. **2017**, 38, 220-224	18

998	Breathable Carbon-Free Electrode: Black TiO2 with Hierarchically Ordered Porous Structure for Stable Li□2 Battery. **2017**, 7, 1700814	50
997	A Plasma-Assisted Route to the Rapid Preparation of Transition-Metal Phosphides for Energy Conversion and Storage. **2017**, 1, 1700111	27
996	New eco-friendly low-cost binders for Li-ion anodes. **2017**, 21, 3429-3435	28
995	A comparative study on polypropylene separators coated with different inorganic materials for lithium-ion batteries. **2017**, 11, 346-352	21
994	Mn oxidation state controllable spinel manganese-based intergrown cathode for excellent reversible lithium storage. **2017**, 359, 295-302	12
993	Exploring metal organic frameworks for energy storage in batteries and supercapacitors. **2017**, 20, 191-209	290
992	Efficient storage mechanisms and heterogeneous structures for building better next-generation lithium rechargeable batteries. **2017**, 79, 1503-1512	6
991	Determining oxidative stability of battery electrolytes: validity of common electrochemical stability window (ESW) data and alternative strategies. **2017**, 19, 16078-16086	84
990	Two isomorphous coordination polymer-derived metal oxides as high-performance anodes for lithium-ion batteries. **2017**, 41, 6187-6194	9
989	Understanding the effects of 3D porous architectures on promoting lithium or sodium intercalation in iodine/C cathodes synthesized via a biochemistry-enabled strategy. **2017**, 9, 9365-9375	23
988	Room-Temperature Sodium-Sulfur Batteries: A Comprehensive Review on Research Progress and Cell Chemistry. **2017**, 7, 1602829	206
987	Revealing the electronic structure of LiC6 by soft X-ray spectroscopy. **2017**, 110, 104106	10
986	Synthesis and characterization of NiFe2O4, CoFe2O4 and CuFe2O4 thin films for anode material in Li-ion batteries. **2017**, 7, 184798041771108	10
985	Honeycomb-inspired design of ultrafine SnO2@C nanospheres embedded in carbon film as anode materials for high performance lithium- and sodium-ion battery. **2017**, 359, 340-348	104
984	Fast microwave synthesis of hybrid graphite-amorphous carbon encapsulated Li3V2(PO4)3 as cathode for lithium ion batteries. **2017**, 43, 11534-11537	5
983	Unique crystallization behavior of sodium manganese pyrophosphate Na2MnP2O7 glass and its electrochemical properties. **2017**, 5, 209-215	16
982	Superionic conduction in □eucryptite: inelastic neutron scattering and computational studies. **2017**, 19, 15512-15520	10
981	Ionic liquid electrodeposition of strain-released Germanium nanowires as stable anodes for lithium ion batteries. **2017**, 9, 8481-8488	29

980	Compositional introduction of lithium ions into conductive polyoxovanadate–surfactant hybrid crystals. **2017**, 19, 3037-3043	4
979	Thickness difference induced pore structure variations in cellulosic separators for lithium-ion batteries. **2017**, 24, 2903-2911	40
978	Conformal Lithium Fluoride Protection Layer on Three-Dimensional Lithium by Nonhazardous Gaseous Reagent Freon. **2017**, 17, 3731-3737	270
977	Structure Evolution and Thermal Stability of High-Energy- Density Li-Ion Battery Cathode Li2VO2F. **2017**, 164, A1552-A1558	20
976	Facile Synthesis and Electrochemistry of Si-Sn-C Nanocomposites for High-Energy Li-Ion Batteries. **2017**, 164, A1378-A1383	6
975	Nitrogen-doped hierarchical carbon spheres derived from MnO2-templated spherical polypyrrole as excellent high rate anode of Li-ion batteries. **2017**, 245, 279-286	27
974	Development of complex hydride-based all-solid-state lithium ion battery applying low melting point electrolyte. **2017**, 359, 97-103	7
973	Crater-like architectural aluminum current collectors with superior electrochemical performance for Li-ion batteries. **2017**, 797, 37-41	12
972	Effect of diphenyl disulfide as an additive on the electrochemical performance of Li1.2Mn0.54Ni0.13Co0.13O2/graphite batteries at elevated temperature. **2017**, 245, 705-714	20
971	An interdisciplinary review of energy storage for communities: Challenges and perspectives. **2017**, 79, 730-749	144
970	In-situ carbon-coated Na 2 FeP 2 O 7 anchored in three-dimensional reduced graphene oxide framework as a durable and high-rate sodium-ion battery cathode. **2017**, 357, 164-172	33
969	Smart hybridization of Sn2Nb2O7/SnO2@3D carbon nanocomposites with enhanced sodium storage performance through self-buffering effects. **2017**, 5, 13052-13061	21
968	A SiOx-Based Anode in a High-Voltage Lithium-Ion Battery. **2017**, 4, 2164-2168	22
967	Investigation on Spinel LiNi0.5Mn1.5O4 Synthesized by MnCO3 Prepared under Different Conditions for Lithium-Ion Batteries. **2017**, 2, 4325-4331	8
966	Synthesis and properties of new carboxyborate lithium salts as electrolytes for lithium-ion batteries. **2017**, 245, 625-633	1
965	CoN Nanosheet Assembled Mesoporous Sphere as a Matrix for Ultrahigh Sulfur Content Lithium-Sulfur Batteries. **2017**, 11, 6031-6039	310
964	Silicon anodes protected by a nitrogen-doped porous carbon shell for high-performance lithium-ion batteries. **2017**, 9, 8871-8878	63
963	Submicron silica as high-capacity lithium storage material with superior cycling performance. **2017**, 96, 347-353	13

962	Anchoring Iodine to N-Doped Hollow Carbon Fold-Hemisphere: Toward a Fast and Stable Cathode for Rechargeable Lithium-Iodine Batteries. **2017**, 9, 20508-20518	56
961	Conductivity Optimization of Tysonite-type LaBaF Solid Electrolytes for Advanced Fluoride Ion Battery. **2017**, 9, 23707-23715	36
960	Silicon/polypyrrole nanocomposite wrapped with graphene for lithium ion anodes. **2017**, 2, 3323-3327	1
959	Silica template-assisted synthesis of SnO2@porous carbon composites as anode materials with excellent rate capability and cycling stability for lithium-ion batteries. **2017**, 7, 30070-30079	18
958	Transition-metal redox evolution in LiNi0.5Mn0.3Co0.2O2 electrodes at high potentials. **2017**, 360, 294-300	47
957	Recycled tetrahedron-like CuCl from waste Cu scraps for lithium ion battery anode. **2017**, 65, 147-152	15
956	High efficiency power management and charge boosting strategy for a triboelectric nanogenerator. **2017**, 38, 438-446	127
955	Compositional control of precipitate precursors for lithium-ion battery active materials: role of solution equilibrium and precipitation rate. **2017**, 5, 13785-13798	21
954	Facile template-free one-pot fabrication of ZnCo2O4 nanospheres for advanced lithium storage capability. **2017**, 23, 3323-3328	2
953	Operando Monitoring of Early Ni-mediated Surface Reconstruction in Layered Lithiated Ni□Co□Mn Oxides. **2017**, 121, 13481-13486	61
952	Conformal poly(ethyl □-cyanoacrylate) nano-coating for improving the interface stability of LiNi 0.5 Mn 1.5 O 4. **2017**, 236, 221-227	19
951	Structural and chemical synergistic effect of CoS nanoparticles and porous carbon nanorods for high-performance sodium storage. **2017**, 35, 281-289	211
950	High-performance spinel-rich LiMnTiO ultralong nanofibers as cathode materials for Li-ion batteries. **2017**, 7, 45579	11
949	Significantly enhanced electrochemical performance of a ZnCo2O4 anode in a carbonate based electrolyte with fluoroethylene carbonate. **2017**, 7, 18491-18499	7
948	2D Film of Carbon Nanofibers Elastically Astricted MnO Microparticles: A Flexible Binder-Free Anode for Highly Reversible Lithium Ion Storage. **2017**, 13, 1604182	33
947	Engineering hetero-epitaxial nanostructures with aligned Li-ion channels in Li-rich layered oxides for high-performance cathode application. **2017**, 35, 271-280	78
946	Molecular Engineering with Organic Carbonyl Electrode Materials for Advanced Stationary and Redox Flow Rechargeable Batteries. **2017**, 29, 1607007	177
945	Dendrite Suppression by Synergistic Combination of Solid Polymer Electrolyte Crosslinked with Natural Terpenes and Lithium-Powder Anode for Lithium-Metal Batteries. **2017**, 10, 2274-2283	38

944	A multi-element doping design for a high-performance LiMnPO4 cathode via metaheuristic computation. **2017**, 5, 8939-8945	24
943	Nitrogen doping in the carbon matrix for Li-ion hybrid supercapacitors: state of the art, challenges and future prospective. **2017**, 7, 18926-18936	24
942	Facile Synthesis of Rod-like Cu Se and Insight into its Improved Lithium-Storage Property. **2017**, 10, 2235-2241	31
941	Resolving the degradation pathways in high-voltage oxides for high-energy-density lithium-ion batteries; Alternation in chemistry, composition and crystal structures. **2017**, 36, 76-84	26
940	Pitch carbon and LiF co-modified Si-based anode material for lithium ion batteries. **2017**, 43, 8590-8595	26
939	Top-Down Strategy to Synthesize Mesoporous Dual Carbon Armored MnO Nanoparticles for Lithium-Ion Battery Anodes. **2017**, 9, 12680-12686	83
938	High ion-conducting solid polymer electrolytes based on blending hybrids derived from monoamine and diamine polyethers for lithium solid-state batteries. **2017**, 7, 20373-20383	12
937	Cu3N and its analogs: a new class of electrodes for lithium ion batteries. **2017**, 5, 8762-8768	25
936	Effect of excess lithium in LiMn2O4 and Li1.15Mn1.85O4 electrodes revealed by quantitative analysis of soft X-ray absorption spectroscopy. **2017**, 110, 093902	13
935	Surface and bulk properties of Li-ion electrodes □A surface science approach. **2017**, 221, 65-78	13
934	Hierarchical Porous Intercalation-Type V O as High-Performance Anode Materials for Li-Ion Batteries. **2017**, 23, 7538-7544	45
933	Dimethyl carbonate as a green chemical. **2017**, 5, 61-66	67
932	Changes of Degradation Mechanisms of LiFePO4/Graphite Batteries Cycled at Different Ambient Temperatures. **2017**, 237, 248-258	36
931	Rational Design of 1-D CoO Nanofibers@Low content Graphene Composite Anode for High Performance Li-Ion Batteries. **2017**, 7, 45105	43
930	TiO 2 -B@VS 2 heterogeneous nanowire arrays as superior anodes for lithium-ion batteries. **2017**, 350, 87-93	35
929	Super-aligned carbon nanotube films with a thin metal coating as highly conductive and ultralight current collectors for lithium-ion batteries. **2017**, 351, 160-168	18
928	A self-assembled 3D urchin-like Ti0.8Sn0.2O2□GO hybrid nanostructure as an anode material for high-rate and long cycle life Li-ion batteries. **2017**, 5, 8087-8094	20
927	A controlled red phosphorus@NiP core@shell nanostructure as an ultralong cycle-life and superior high-rate anode for sodium-ion batteries. **2017**, 10, 1222-1233	146

926	A new and effective approach to 4.8 V cathode synthesis with superior electrochemical qualities for lithium-ion applications. **2017**, 710, 809-818		11
925	A hierarchical MoC1 hybrid nanostructure for lithium-ion storage. **2017**, 5, 8125-8132		30
924	Ultrathin VO2 nanosheets self-assembled into 3D micro/nano-structured hierarchical porous sponge-like micro-bundles for long-life and high-rate Li-ion batteries. **2017**, 5, 8307-8316		60
923	Structure and electrochemical performance of LiFePO4 modified with mononuclear and binuclear phthalocyanines as cathode materials. **2017**, 32, 1168-1176		2
922	Uniform Lithium Deposition Induced by Polyacrylonitrile Submicron Fiber Array for Stable Lithium Metal Anode. **2017**, 9, 10360-10365		43
921	Performance of solid-state hybrid supercapacitor with LiFePO4/AC composite cathode and Li4Ti5O12 as anode. **2017**, 23, 2931-2942		15
920	An All-Organic Proton Battery. *Journal of the American Chemical Society*, **2017**, 139, 4828-4834	16.4	127
919	Controlling Li2CuO2 single phase transition to preserve cathode capacity and cyclability in Li-ion batteries. **2017**, 303, 89-96		12
918	Effect of Potential Profile on Battery Capacity Decrease during Continuous Cycling. **2017**, 121, 6018-6023		9
917	Ultrathin Hollow Graphene Oxide Membranes for Use as Nanoparticle Carriers. **2017**, 33, 3765-3775		4
916	Well-ordered mesoporous FeO/C composites as high performance anode materials for sodium-ion batteries. **2017**, 46, 5025-5032		29
915	Oxidatively stable fluorinated sulfone electrolytes for high voltage high energy lithium-ion batteries. **2017**, 10, 900-904		87
914	Solving Key Challenges in Battery Research Using In Situ Synchrotron and Neutron Techniques. **2017**, 7, 1602831		50
913	High performance rechargeable Li-S batteries using binder-free large sulfur-loaded three-dimensional carbon nanotubes. **2017**, 118, 120-126		63
912	Enhanced electrochemical performances and thermal stability of LiNi1/3Co1/3Mn1/3O2 by surface modification with YF3. **2017**, 711, 462-472		25
911	Two-dimensional layered compound based anode materials for lithium-ion batteries and sodium-ion batteries. **2017**, 499, 17-32		59
910	Plasma processes in the preparation of lithium-ion battery electrodes and separators. **2017**, 50, 163001		7
909	Naturally nitrogen doped porous carbon derived from waste shrimp shells for high-performance lithium ion batteries and supercapacitors. **2017**, 246, 72-80		114

908	Design of coherent anode materials with 0D Ni3S2 nanoparticles self-assembled on 3D interconnected carbon networks for fast and reversible sodium storage. **2017**, 5, 7394-7402	112
907	A Tunable 3D Nanostructured Conductive Gel Framework Electrode for High-Performance Lithium Ion Batteries. **2017**, 29, 1603922	124
906	Aluminum and fluorine co-doping for promotion of stability and safety of lithium-rich layered cathode material. **2017**, 236, 171-179	50
905	Constructing a novel strategy for carbon-doped TiO2 multiple-phase nanocomposites toward superior electrochemical performance for lithium ion batteries and the hydrogen evolution reaction. **2017**, 5, 7055-7063	47
904	MoS-Based Nanocomposites for Electrochemical Energy Storage. **2017**, 4, 1600289	278
903	Synthesis and improved electrochemical performance of LiMn2 □xGdxO4 based cathodes. **2017**, 300, 18-25	11
902	New insight into Li/Ni disorder in layered cathode materials for lithium ion batteries: a joint study of neutron diffraction, electrochemical kinetic analysis and first-principles calculations. **2017**, 5, 1679-1686	45
901	Highly Stable Cycling of Amorphous Li2CO3-Coated □Fe2O3 Nanocrystallines Prepared via a New Mechanochemical Strategy for Li-Ion Batteries. **2017**, 27, 1605011	46
900	Advanced Materials for Printed Wearable Electrochemical Devices: A Review. **2017**, 3, 1600260	290
899	In situ-formed LiVOPO 4 @V 2 O 5 core-shell nanospheres as a cathode material for lithium-ion cells. **2017**, 7, 48-55	56
898	Are All-Solid-State Lithium-Ion Batteries Really Safe?-Verification by Differential Scanning Calorimetry with an All-Inclusive Microcell. **2017**, 9, 1507-1515	104
897	Split Sn-Cu Alloys on Carbon Nanofibers by One-step Heat Treatment for Long-Lifespan Lithium-Ion Batteries. **2017**, 225, 350-357	14
896	A molybdenum disulfide/reduced oxide-graphene nanoflakelet-on-sheet structure for lithium ion batteries. **2017**, 399, 237-244	13
895	Molten Salt Electrolytically Produced Carbon/Tin Nanomaterial as the Anode in a Lithium Ion Battery. **2017**, 4, 22-28	
894	Metal Sulfide-Blended Sulfur Cathodes in High Energy Lithium-Sulfur Cells. **2017**, 164, A265-A276	35
893	In Situ Reversible Ionic Control for Nonvolatile Magnetic Phases in a Donor/Acceptor Metal-Organic Framework. **2017**, 27, 1604990	26
892	Cathodic titania nanotube arrays as anode material for lithium-ion batteries. **2017**, 52, 4323-4332	7
891	New small molecule gel electrolyte with high ionic conductivity for Li□ batteries. **2017**, 52, 4086-4095	9

890	Effects of Cr2O3-modified LiNi1/3Co1/3Mn1/3O2 cathode materials on the electrochemical performance of lithium-ion batteries. **2017**, 52, 4599-4607	9
889	Nitrogen-Doped Porous Carbon Nanosheets from Eco-Friendly Eucalyptus Leaves as High Performance Electrode Materials for Supercapacitors and Lithium Ion Batteries. **2017**, 23, 3683-3690	102
888	Design principles and energy system scale analysis technologies of new lithium-ion and aluminum-ion batteries for sustainable energy electric vehicles. **2017**, 71, 645-651	30
887	Effects of excess Li on the structure and electrochemical performance of Li 1+z MnTiO 4+ δ cathode for Li-ion batteries. **2017**, 225, 458-466	13
886	A pre-lithiation method for sulfur cathode used for future lithium metal free full battery. **2017**, 342, 537-545	24
885	Significance of ferroelectric polarization in poly (vinylidene difluoride) binder for high-rate Li-ion diffusion. **2017**, 32, 255-262	38
884	General synthesis of graphene-supported bicomponent metal monoxides as alternative high-performance Li-ion anodes to binary spinel oxides. **2017**, 5, 1687-1697	26
883	Engineered Interfaces in Hybrid Ceramic–Polymer Electrolytes for Use in All-Solid-State Li Batteries. **2017**, 2, 134-138	62
882	Freestanding hollow double-shell Se@CNx nanobelts as large-capacity and high-rate cathodes for Li-Se batteries. **2017**, 32, 1-9	86
881	Rapid hydrothermal and post-calcination synthesis of well-shaped LiNi0.5Mn1.5O4 cathode materials for lithium ion batteries. **2017**, 695, 3393-3401	24
880	A Novel Tin-Graphite Dual-Ion Battery Based on Sodium-Ion Electrolyte with High Energy Density. **2017**, 7, 1601963	183
879	Calculations in Li-Ion Battery Materials. **2017**, 313-328	2
878	Atomic Insights into the Enhanced Surface Stability in High Voltage Cathode Materials by Ultrathin Coating. **2017**, 27, 1602873	24
877	Li3Y(PS4)2 and Li5PS4Cl2: New Lithium Superionic Conductors Predicted from Silver Thiophosphates using Efficiently Tiered Ab Initio Molecular Dynamics Simulations. **2017**, 29, 2474-2484	68
876	Electrolytes for electrochemical energy storage. **2017**, 1, 584-618	148
875	Freeze-drying synthesis of three-dimensional porous LiFePO 4 modified with well-dispersed nitrogen-doped carbon nanotubes for high-performance lithium-ion batteries. **2017**, 400, 329-338	40
874	Changing Established Belief on Capacity Fade Mechanisms: Thorough Investigation of LiNi1/3Co1/3Mn1/3O2 (NCM111) under High Voltage Conditions. **2017**, 121, 1521-1529	89
873	Ultrahigh energy storage and ultrafast ion diffusion in borophene-based anodes for rechargeable metal ion batteries. **2017**, 5, 2328-2338	95

872	Core□shell and concentration-gradient cathodes prepared via co-precipitation reaction for advanced lithium-ion batteries. **2017**, 5, 4254-4279	136
871	Hierarchical Mn1.5Co1.5O4 microspheres constructed from one-dimensional nanorods as high-performance anode material for lithium-ion battery. **2017**, 23, 1067-1074	2
870	Recent Progress on Spray Pyrolysis for High Performance Electrode Materials in Lithium and Sodium Rechargeable Batteries. **2017**, 7, 1601578	92
869	Free-standing reduced graphene oxide/MnO-reduced graphene oxide-carbon nanotube nanocomposite flexible membrane as an anode for improving lithium-ion batteries. **2017**, 19, 7498-7505	32
868	Cation Mixing Properties toward Co Diffusion at the LiCoO Cathode/Sulfide Electrolyte Interface in a Solid-State Battery. **2017**, 9, 286-292	77
867	Energy storage through intercalation reactions: electrodes for rechargeable batteries. **2017**, 4, 26-53	74
866	Hierarchical Porous Te@ZnCo2O4 Nanofibers Derived from Te@Metal-Organic Frameworks for Superior Lithium Storage Capability. **2017**, 27, 1604941	66
865	3D Interconnected Carbon Fiber Network-Enabled Ultralong Life Na V (PO) @Carbon Paper Cathode for Sodium-Ion Batteries. **2017**, 13, 1603318	52
864	The lithium storage performance of electrolytic-carbon from CO2. **2017**, 341, 419-426	14
863	NiSe Nanooctahedra as an Anode Material for High-Rate and Long-Life Sodium-Ion Battery. **2017**, 9, 311-316	182
862	Enhancing Electrochemical Performance of High Voltage (4.5 V) Graphite/LiNi0.5Co0.2Mn0.3O2Cell by Tailoring Cathode Interface. **2017**, 164, A137-A144	14
861	A novel MWCNT/nanotubular TiO2(B) loaded with SnO2 nanocrystals ternary composite as anode material for lithium-ion batteries. **2017**, 52, 3016-3027	12
860	Evaluation of Allylboronic Acid Pinacol Ester as Effective Shutdown Overcharge Additive for Lithium Ion Cells. **2017**, 164, A168-A172	12
859	The Lithium Electrode Revisited through the Prism of Li□ Batteries. **2017**, 195-273	1
858	Nanoscale Manipulation of Spinel Lithium Nickel Manganese Oxide Surface by Multisite Ti Occupation as High-Performance Cathode. **2017**, 29, 1703764	91
857	Graphene-Armored Aluminum Foil with Enhanced Anticorrosion Performance as Current Collectors for Lithium-Ion Battery. **2017**, 29, 1703882	53
856	High-capacity lithium-rich cathode oxides with multivalent cationic and anionic redox reactions for lithium ion batteries. **2017**, 60, 1483-1493	21
855	Theoretical Studies of the Reduction of Cyclic Esters on the Anode Interface of Lithium Batteries. **2017**, 164, A3144-A3153	7

854	A novel MoS2/C nanocomposite as an anode material for lithium-ion batteries. **2017**, 729, 583-589	15
853	A stable organic□inorganic hybrid layer protected lithium metal anode for long-cycle lithium-oxygen batteries. **2017**, 366, 265-269	32
852	Self-assembled Li3V2(PO4)3/reduced graphene oxide multilayer composite prepared by sequential adsorption. **2017**, 367, 167-176	5
851	Low temperature synthesis and ion conductivity of Li7La3Zr2O12 garnets for solid state Li ion batteries. **2017**, 310, 129-133	24
850	Design Strategies for Promising Organic Positive Electrodes in Lithium-Ion Batteries: Quinones and Carbon Materials. **2017**, 56, 12009-12023	38
849	Insights into Electrochemistry and Mechanical Stability of □and □Li2MnP2O7 for Lithium-Ion Cathode Materials: First-Principles Comparison. **2017**, 121, 22656-22664	4
848	Reducing the Charge Carrier Transport Barrier in Functionally Layer-Graded Electrodes. **2017**, 129, 15043-15048	85
847	Visualizing spatially decomposed intermolecular correlations in the infrared spectra of aprotic liquids. **2017**, 78, 148-157	3
846	Physicochemical and electrochemical characterisation of imidazolium based IL + GBL mixtures as electrolytes for lithium-ion batteries. **2017**, 19, 28139-28152	7
845	Multiferroic Double Perovskites ScFe1⊠CrxO3 (1/6⊠□/6) for Highly Efficient Photovoltaics and Spintronics. **2017**, 8,	17
844	Mechanical and Thermal Failure Induced by Contact between a Li1.5Al0.5Ge1.5(PO4)3 Solid Electrolyte and Li Metal in an All Solid-State Li Cell. **2017**, 29, 8611-8619	137
843	Reversible control of the magnetization of spinel ferrites based electrodes by lithium-ion migration. **2017**, 7, 12554	21
842	Surface/Interfacial Structure and Chemistry of High-Energy Nickel-Rich Layered Oxide Cathodes: Advances and Perspectives. **2017**, 13, 1701802	173
841	Prediction Model and Principle of End-of-Life Threshold for Lithium Ion Batteries Based on Open Circuit Voltage Drifts. **2017**, 255, 83-91	7
840	Hybrid LiMn2O4□adical polymer cathodes for pulse power delivery applications. **2017**, 255, 442-448	9
839	The electrochemical confrontation between CoP microflake and Co3O4 microsphere via a similar synthesis process as anodes for lithium ion batteries. **2017**, 728, 910-916	11
838	Interfacial properties of alloy anodes in combination with room temperature ionic liquid electrolytes: A review based on Li secondary batteries. **2017**, 805, 98-109	12
837	Material and Structural Design of Novel Binder Systems for High-Energy, High-Power Lithium-Ion Batteries. **2017**, 50, 2642-2652	186

836	Role of Superexchange Interaction on Tuning of Ni/Li Disordering in Layered Li(NiMnCo)O. **2017**, 8, 5537-5542		62
835	Zirconia-supported solid-state electrolytes for high-safety lithium secondary batteries in a wide temperature range. **2017**, 5, 24677-24685		25
834	Sulfur-doped carbon employing biomass-activated carbon as a carrier with enhanced sodium storage behavior. **2017**, 5, 24353-24360		42
833	Ionic Conduction and Applications. **2017**, 1-1		4
832	Interfacial Chemistry Regulation via a Skin-Grafting Strategy Enables High-Performance Lithium-Metal Batteries. *Journal of the American Chemical Society*, **2017**, 139, 15288-15291	16.4	203
831	Thiol-ene synthesis and characterization of lithium bis(malonato)borate single-ion conducting gel polymer electrolytes. **2017**, 13, 7633-7643		15
830	Squid Ink-Assisted Fabricating MoS2 Nanosheets/Ultrafine Biocarbon Spheres Composites with an Enhanced Lithium Ion Storage Performance. **2017**, 2, 8643-8649		4
829	Recent advances in printable secondary batteries. **2017**, 5, 22442-22458		40
828	Li-Rich Layered/Spinel Heterostructured Special Morphology Cathode Material with High Rate Capability for Li-Ion Batteries. **2017**, 5, 11005-11015		25
827	Comb-like solid polymer electrolyte based on polyethylene glycol-grafted sulfonated polyether ether ketone. **2017**, 255, 396-404		43
826	Determination of the core temperature of a Li-ion cell during thermal runaway. **2017**, 370, 27-35		41
825	Complex Nanostructures from Materials based on Metal-Organic Frameworks for Electrochemical Energy Storage and Conversion. **2017**, 29, 1703614		522
824	Improving the Structural Stability of Li-Rich Layered Cathode Materials by Constructing an Antisite Defect Nanolayer through Polyanion Doping. **2017**, 4, 3068-3074		15
823	Ultrafast Charging High Capacity Asphalt-Lithium Metal Batteries. **2017**, 11, 10761-10767		70
822	A new etching environment (FeF3/HCl) for the synthesis of two-dimensional titanium carbide MXenes: a route towards selective reactivity vs. water. **2017**, 5, 22012-22023		115
821	Reducing the Charge Carrier Transport Barrier in Functionally Layer-Graded Electrodes. **2017**, 56, 14847-14852		71
820	(101) Plane-Oriented SnS Nanoplates with Carbon Coating: A High-Rate and Cycle-Stable Anode Material for Lithium Ion Batteries. **2017**, 9, 35880-35887		37
819	The suppression of lithium dendrite growth in lithium sulfur batteries: A review. **2017**, 13, 387-400		40

818	Progress and prospects of sodium-sulfur batteries: A review. **2017**, 312, 8-16	88
817	Dumbbell-Shaped Octasilsesquioxanes Functionalized with Ionic Liquids as Hybrid Electrolytes for Lithium Metal Batteries. **2017**, 29, 9275-9283	14
816	Ambient-Temperature Energy Storage with Polyvalent Metal Sulfur Chemistry. **2017**, 1, 1700217	31
815	Controlled synthesis of hollow octahedral ZnCoO nanocages assembled from ultrathin 2D nanosheets for enhanced lithium storage. **2017**, 9, 17174-17180	31
814	Hierarchically porous-structured ZnxCo1 S@C CNT nanocomposites with high-rate cycling performance for lithium-ion batteries. **2017**, 5, 23221-23227	53
813	Ternary AlCl3-Urea-[EMIm]Cl Ionic Liquid Electrolyte for Rechargeable Aluminum-Ion Batteries. **2017**, 164, A3093-A3100	29
812	High Reversible Pseudocapacity in Mesoporous Yolk Shell Anatase TiO2/TiO2(B) Microspheres Used as Anodes for Li-Ion Batteries. **2017**, 27, 1703270	82
811	Flexible, High-Wettability and Fire-Resistant Separators Based on Hydroxyapatite Nanowires for Advanced Lithium-Ion Batteries. **2017**, 29, 1703548	192
810	Atomic-Scale Monitoring of Electrode Materials in Lithium-Ion Batteries using In Situ Transmission Electron Microscopy. **2017**, 7, 1700709	44
809	Self-Assembled LiNiCoMnO Nanosheet Cathode with High Electrochemical Performance. **2017**, 9, 39560-39568	40
808	Improved Performances of LiNiCoAlO Material Employing NaAlO as a New Aluminum Source. **2017**, 9, 38567-38574	34
807	Reinforcing Germanium Electrode with Polymer Matrix Decoration for Long Cycle Life Rechargeable Lithium Ion Batteries. **2017**, 9, 38556-38566	21
806	Methodology for synthesizing the nickel cobalt hydroxide/oxide and reduced graphene oxide complex for energy storage electrodes. **2017**, 14, 112-124	9
805	Critical Role of Ultrathin Graphene Films with Tunable Thickness in Enabling Highly Stable Sodium Metal Anodes. **2017**, 17, 6808-6815	151
804	ZnAlxCo2 O4 Spinels as Cathode Materials for Non-Aqueous Zn Batteries with an Open Circuit Voltage of V. **2017**, 29, 9351-9359	67
803	TiO2-rGO nanocomposite hollow spheres: large scale synthesis and application as an efficient anode material for lithium-ion batteries. **2017**, 5, 23853-23862	48
802	Nanostructured Electrode Materials for High-Energy Rechargeable Li, Na and Zn Batteries. **2017**, 29, 9589-9604	60
801	Smart Electrochemical Energy Storage Devices with Self-Protection and Self-Adaptation Abilities. **2017**, 29, 1703040	57

800	All-Nanomat Lithium-Ion Batteries: A New Cell Architecture Platform for Ultrahigh Energy Density and Mechanical Flexibility. **2017**, 7, 1701099	23
799	Cyclopentadithiophene–Terephthalic Acid Copolymers: Synthesis via Direct Arylation and Saponification and Applications in Si-Based Lithium-Ion Batteries. **2017**, 50, 6924-6934	13
798	A Tutorial into Practical Capacity and Mass Balancing of Lithium Ion Batteries. **2017**, 164, A2479-A2486	101
797	Visualizing redox orbitals and their potentials in advanced lithium-ion battery materials using high-resolution x-ray Compton scattering. **2017**, 3, e1700971	17
796	Insights into the use of polyethylene oxide in energy storage/conversion devices: a critical review. **2017**, 50, 443002	79
795	Thermal issues about Li-ion batteries and recent progress in battery thermal management systems: A review. **2017**, 150, 304-330	433
794	N-Doped hollow carbon nanosheet supported SnO2 nanoparticles. **2017**, 4, 1742-1747	12
793	Dual Intercalation of Inorganics-organics Synergistically Tuning the Layer Spacing of V2O5·nH2O Boosts Zn2+ Storage for Aqueous Zinc-Ion Batteries.	1
792	Insights into the Electronic Structure and Vibrational Dynamics of Li7mnn4 Anode Material for Li-Ion Battery: A Combined Experimental and Computational Study.	
791	Anode-Free Solid-State Lithium Batteries: A Review. 2201044	9
790	Ultralong Lifespan for High-Voltage LiCoO2 Enabled by In Situ Reconstruction of an Atomic Layer Deposition Coating Layer.	1
789	Structural, thermal and electrochemical characterization of cellulose acetate–based solid biopolymer electrolyte for zinc ion batteries.	0
788	VPO4F Fluorophosphates Polyanion Cathodes for High-Voltage Proton Storage.	
787	Mechanisms for self-templating design of micro/nanostructures toward efficient energy storage. 20210237	2
786	Recycling spent lead acid batteries into aqueous zinc-ion battery material with ultra-flat voltage platforms. **2022**,	0
785	Focus on using nanopore technology for societal health, environmental, and energy challenges.	1
784	Environmental Impact Assessment of Na 3 V 2 (PO 4) 3 Cathode Production for Sodium-Ion Batteries. 2200049	2
783	(De)Lithiation and Strain Mechanism in Crystalline Ge Nanoparticles.	1

782	Porous Carbons Derived from Desiliconized Rice Husk Char and Their Applications as an Adsorbent in Multivalent Ions Recycling for Spent Battery. **2022**, 2022, 1-12	0
781	Stimulus-responsive polymers for safe batteries and smart electronics.	1
780	V2O5 vs. LiFePO4: Who is performing better in the 3.4 V class category? A performance evaluation in Rocking-chair configuration with graphite anode. **2022**,	
779	Mesoporous Polyimide-linked Covalent Organic Framework with Multiple Redox-active Sites for High-Performance Cathodic Li Storage.	0
778	Investigation of ZnO nano-filler-dispersed nano-composite polymer electrolytes and their ion transport property.	1
777	Enhanced cycling performance of Fe-doped LiMn2O4 truncated octahedral cathodes for Li-ion batteries.	0
776	High-performance K-ion half/full batteries with superb rate capability and cycle stability. **2022**, 119,	2
775	Face-lifting the surface of LiNi0.8Co0.15Al0.05O2 cathode via Y(PO3)3 to form an in-situ triple composite Li-ion conductor coating layer with the enhanced electrochemical performance.	0
774	Layered iron dichalcogenides with high ion mobility and capacity as promising anode materials for alkali metal-ion batteries: A first-principles study. **2022**, 211, 111523	
773	Recent progress in emerging hybrid nanomaterials towards the energy storage and heat transfer applications: A review. **2022**, 360, 119443	1
772	APXPS of Solid/Liquid Interfaces. 67-92	1
771	Operando resonant soft X-ray emission spectroscopy of the LiMn2O4 cathode using an aqueous electrolyte solution.	0
770	A Binder-Free Amorphous Manganese Dioxide for Aqueous Zinc-Ion Battery. **2022**, 10, 13-18	0
769	Environmentally friendly method for efficiently recycling LiMn2O4 cathode materials.	
768	An anionic regulation mechanism for structural reconstruction of sulfide electrocatalysts under oxygen evolution conditions.	9
767	Computational mechanistic insights on Ag2O as a host for Li in lithium-ion batteries.	
766	Ultrafine Sb Nanoparticles In Situ Confined in Covalent Organic Frameworks for High-Performance Sodium-Ion Battery Anode.	1
765	The Role of Active Passivated Interface in Poly (Ethylene Oxide) Electrolyte for 4.2 V Solid-State Lithium Metal Batteries.	

764	Progress in Electrode and Electrolyte Materials: Path to All-solid-state Li-ion Batteries (ASSLIB).		4
763	Balancing the Anions Adsorption and Intercalation in Carbon Cathode Enables High Energy Density Dual-Carbon Lithium-Ion Capacitors.		
762	Developing a nitrile-based lithium-conducting electrolyte for low temperature operation.		
761	Understanding the fundamentals of TiO2 surfaces. Part I. The influence of defect states on the correlation between crystallographic structure, electronic structure and physical properties of single-crystal surfaces. **2022**, 38, 91-149		3
760	Recovery of lithium from salt lake brine with high Na/Li ratio using solvent extraction. **2022**, 119667		1
759	Nanomembranes for Energy Storage. **2022**, 221-252		
758	Hierarchically structured silicon/graphene composites wrapped by interconnected carbon nanotube branches for lithium-ion battery anodes.		1
757	Prelithiation Bridges the Gap for Developing Next-Generation Lithium-Ion Batteries/Capacitors. 2200411		1
756	Battery thermal management systems: Recent progress and challenges. **2022**, 100171		4
755	Progress, Key Issues, and Future Prospects for Li-Ion Battery Recycling. 2200067		6
754	Suppress Oxygen Evolution of Lithium-Rich Manganese- Based Cathode Materials via an Integrated Strategy. **2022**,		0
753	Structure, Diffusion, and Stability of Lithium Salts in Aprotic Dimethyl Sulfoxide and Acetonitrile Electrolytes.		1
752	Enhanced interphasial stability of hard carbon for sodium-ion battery via film-forming electrolyte additive.		1
751	Electronic Bridge Construction via Ag Intercalation to Diminish Catalytic Anisotropy for 2D Tin Diselenide Cathode Catalyst in Lithium Oxygen Batteries. 2200791		4
750	Mathematical Modeling of Aging Mechanisms in Lithium-Ion Batteries. 111-133		
749	Expanding the active charge carriers of polymer electrolytes in lithium-based batteries using an anion-hosting cathode. **2022**, 13,		1
748	Dynamics of Solid-Electrolyte Interphase Formation on Silicon Electrodes Revealed by Combinatorial Electrochemical Screening.		4
747	Kinetic Origin of Planar Gliding in Single-Crystalline Ni-Rich Cathodes. *Journal of the American Chemical Society*,	16.4	6

746	Revisiting Polytetrafluorethylene Binder for Solvent-Free Lithium-Ion Battery Anode Fabrication. **2022**, 8, 57	3
745	Carbon nanotubes-coated Ni-rich cathodes for the green manufacturing process of lithium-ion batteries.	0
744	Improvement of the Interface between the Lithium Anode and a Garnet-Type Solid Electrolyte of Lithium Batteries Using an Aluminum-Nitride Layer. **2022**, 12, 2023	4
743	Impact of Overlithiation and Al doping on the battery performance of Li-rich layered oxide materials. **2022**, 140737	2
742	In-situ synthesized cathode prelithiation additive to compensate initial capacity loss for lithium ion batteries. **2022**, 116567	0
741	Suppression of partially irreversible phase transition in O?3-Na3Ni2SbO6 cathode for sodium-ion batteries by interlayered structural modulation. **2022**,	0
740	The Nature of Interface Interactions Leading to High Ionic Conductivity in LiBH4/SiO2 Nanocomposites.	0
739	Modulation of Backbone Architecture to Design Structurally Durable Tetracyanoquinodimethane Derivatives with High Redox Activity.	
738	Atomic-Scale Insights into Comparative Mechanisms and Kinetics of Na□ and Li□ Batteries. 7664-7676	6
737	Assessing (Mo2/3Sc1/3)2C and (Mo2/3Sc1/3)2CT2 (T = □, □H, and □) i-MXenes as High-Performance Electrode Materials for Lithium and Non-Lithium Ion Batteries.	0
736	Boosting sulfur redox kinetics by a pentacenetetrone redox mediator for high-energy-density lithium-sulfur batteries.	1
735	N-substituted carbazole derivates salts as stable organic electrodes for anion insertion.	
734	Li8MnO6: A Novel Cathode Material with Only Anionic Redox.	0
733	AA-Stacked Borophene-Graphene Bilayer as an Anode Material for Alkali-Metal Ion Batteries with a Superhigh Capacity.	
732	Three-dimensional porous framework constructed by hybrid of carbon nanotubes and carbon nanocoils for stable lithium metal anode.	
731	In Situ Thermal Safety Aspect of the Electrospun Polyimide-Al2O3 Separator Reveals Less Exothermic Heat Energies Than Polypropylene at the Thermal Runaway Event of Lithium-Ion Batteries. **2022**, 14, 28310-28320	2
730	Nano-LiFePO4/C Derived from Gaseous-Oxidation Engineering-Synthesized Amorphous Mesoporous nano-FePO4 for High-Rate Li-Ion Batteries.	0
729	Insights into the electronic structure and vibrational dynamics of Li7MnN4 anode material for Li-ion battery: a combined experimental and computational study. **2022**, 166004	0

728	Rapid 3D nondestructive imaging technology for batteries: Photoacoustic microscopy.	1
727	Tuning 4f-Center Electron Structure by Schottky Defects for Catalyzing Li Diffusion to Achieve Long-Term Dendrite-Free Lithium Metal Battery. 2202244	1
726	Mesoporous Polyimide-Linked Covalent Organic Framework with Multiple Redox-Active Sites for High-Performance Cathodic Li Storage.	9
725	Hysteresis Induced by Incomplete Cationic Redox in Li-Rich 3d-Transition-Metal Layered Oxides Cathodes. 2201896	1
724	Dynamics of Solid-Electrolyte Interphase Formation on Silicon Electrodes Revealed by Combinatorial Electrochemical Screening.	
723	Bifunctional coating layer on Ni-rich cathode materials to enhance electrochemical performance and thermal stability in lithium-ion batteries. **2022**, 242, 110083	0
722	A metal□rganic-framework derived NiFe2O4@NiCo-LDH nanocube as high-performance lithium-ion battery anode under different temperatures. **2022**, 599, 153953	2
721	N-functionalized Ti2B MBene as high-performance anode materials for sodium-ion batteries: A DFT study. **2022**, 599, 153927	0
720	An ion conducting ZIF-8 coating protected PEO based polymer electrolyte for high voltage lithium metal batteries. **2022**, 447, 137503	0
719	General flux-free synthesis of single crystal Ni-rich layered cathodes by employing a Li-containing spinel transition phase for lithium-ion batteries.	0
718	Bionanotechnology and Bionanomaterials. **2022**, 3-44	
717	Metal nanoclusters for energy storage applications. **2022**, 625-658	
716	Graphene oxide-based modified electrodes for lithium-ion batteries. **2022**, 267-279	
715	Lithiation Mechanism and Performance of Monoclinic ZnP2 Anode Materials. **2022**, 80, 756	0
714	Surface potential-determined performance of Ti3C2T2 (T = O, F, OH) and Zr3C2T2 (T = O, F, OH, S) MXenes as anode materials of sodium ion batteries.	1
713	On the Connection between Slurry Rheology and Electrochemical Performance of Graphite Anodes in Lithium-Ion Batteries.	
712	Spray-Drying Al Onto Hydroxide Precursors to Prepare Lini0.855co0.095al0.05o2 as a Highly Stable Cathode for Lithium-Ion Batteries.	
711	From Solid Waste to High-Performance Li3.25Si Anode: Towards High Initial Coulombic Efficiency Li-Si Alloy Electrodes for Li-Ion Batteries.	

710	Phase-Field Simulation and Machine Learning Study of the Effects of Elastic and Plastic Properties of Electrodes and Solid Polymer Electrolytes on the Suppression of Li Dendrite Growth. **2022**, 14, 30658-30671	1
709	Gallium-based liquid metals for lithium-ion batteries.	0
708	High Performance Doped Li-Rich Li1+xMn2□O4 Cathodes Nanoparticles Synthesized by Facile, Fast, and Efficient Microwave-Assisted Hydrothermal Route.	0
707	Challenges and Perspectives for Doping Strategy for Manganese-Based Zinc-ion Battery Cathode. **2022**, 15, 4698	2
706	Recent development in the field of ceramics solid-state electrolytes: I□Oxide ceramic solid-state electrolytes.	1
705	ReS2 vs MoS2: Viable electrodes for batteries and capacitors. **2022**, 139, 107313	0
704	Decoupled aqueous batteries using pH-decoupling electrolytes. **2022**, 6, 505-517	3
703	Simultaneous Near-Surface Trace Doping and Surface Modifications by Gas□Solid Reactions during One-Pot Synthesis Enable Stable High-Voltage Performance of LiCoO 2. 2200008	2
702	Dynamic Switching and Energy Storage Unified by Electrochemical Ion Intercalation. 2200466	
701	Utilization of Cu-Foil Waste as a High-Capacity Anode Material for High Performance LiNi_{0.8}Co_{0.1}Mn_{0.1}O₂/CuO@Graphite Batteries. 417, 207-217	
700	Cu□V bimetallic selenide with synergistic effect for high-rate and long-life sodium storage.	
699	High-Energy Lithium Ion Batteries: Recent Progress and A Promising Future in Applications.	1
698	Li+ Ion Transport at the Lithium Metal Anode: A Fundamental Picture and Future Perspectives. **2022**, 126, 10644-10652	0
697	Selective recovery of lithium from spent lithium iron phosphate batteries using oxidation pressure sulfuric acid leaching system. **2022**, 32, 2071-2079	2
696	Conversion reaction-based transition metal oxides as anode materials for lithium ion batteries: recent progress and future prospects. **2022**, 25, 218-246	
695	Effect of the Crystalline Structure of CuxMo6S8 on the Capacity of Mg-Based Secondary Batteries.	0
694	In Situ Construction of CeO2-Incorporated Hybrid Covalent Organic Frameworks for Highly Efficient Lithium□Sulfur Batteries.	1
693	Regulation of Dendrite-Free Li Plating via Lithiophilic Sites on Lithium-Alloy Surface.	2

692	Investigation and Design of High-Loading Sulfur Cathodes with a High-Performance Polysulfide Adsorbent for Electrochemically Stable Lithium–Sulfur Batteries. **2022**, 10, 9254-9264	5
691	Tuning Li-excess to optimize Ni/Li exchange and improve stability of structure in LiNi0.8Co0.1Mn0.1O2 cathode material for lithium-ion batteries.	0
690	Lithiation Pathway Mechanism of Si-C Composite Anode Revealed by the Role of Nanopore using In Situ Lithiation. 2469-2476	1
689	Three-dimensional carbon network supported Li3V2(PO4)3/C and Na3V2(PO4)3/C composites for lithium/sodium storage. **2022**, 154285	0
688	An asymmetric bilayer polymer-ceramic solid electrolyte for high-performance sodium metal batteries. **2022**,	2
687	Progress and perspective of high-voltage lithium cobalt oxide in lithium-ion batteries. **2022**,	1
686	Review of electrolyte strategies for competitive dual-ion batteries. **2022**, 100188	1
685	Graphene-Based Materials for Lithium/Sodium-Ion Batteries. **2022**, 123-162	
684	Advanced single-crystal layered Ni-rich cathode materials for next-generation high-energy-density and long-life Li-ion batteries. **2022**, 6,	0
683	Heterogeneity and Nanostructure of Superconcentrated LiTFSI–EmimTFSI Hybrid Aqueous Electrolytes: Beyond the 21 m Limit of Water-in-Salt Electrolyte.	0
682	In situ visualization of multicomponents coevolution in a battery pouch cell. **2022**, 119,	0
681	Active Sulfur-Host Material VS4 with Surface Defect Engineering: Intercalation-Conversion Hybrid Cathode Boosting Electrochemical Performance of Li–S Batteries.	2
680	NaSICON: A promising solid electrolyte for solid-state sodium batteries.	1
679	Rational Design Hierarchical SnS2 Uniformly Adhered to Three-Sided Carbon Active Sites to Enhance Sodium Storage.	0
678	Toward Automated Computational Discovery of Battery Materials. 2200616	2
677	MXene as Emerging Low Dimensional Material in Modern Energy and Bio Application: A Review. 74, 109-154	
676	Two-dimensional CSiO and CGeO: direct-band-gap semiconductors with normal/anomalous auxeticity for solar cells and alkali-metal-ion batteries. **2022**, 34, 365301	
675	Complex Electrode Microstructure Simulations using a Smoothed Boundary Method with Adaptive Mesh Refinement.	1

674	Enhanced performance of flexible quasi-solid-state lithium batteries with high-loading cathode enabled by laser drilling. **2022**, 542, 231782		0
673	Non-flammable ultralow concentration mixed ether electrolyte for advanced lithium metal batteries. **2022**, 51, 660-670		1
672	High-performance gel electrolyte for enhanced interface compatibility and lithium metal stability in high-voltage lithium battery. **2022**, 651, 129665		0
671	A facile and low-cost wet-chemistry artificial interface engineering for garnet-based solid-state Li metal batteries. **2022**, 101, 107603		0
670	Simulated discharge overpotential distributions for sintered electrode batteries in rechargeable coin cell form factors. **2022**, 54, 105218		2
669	Regulating dissolution chemistry of nitrates in carbonate electrolyte for high-stable lithium metal batteries. **2022**, 73, 422-428		0
668	Conductive coordination nanosheets: Sailing to electronics, energy storage, and catalysis. **2022**, 470, 214693		2
667	N-doped graphitic carbon coated Fe2O3 using dopamine as an anode material for sodium-ion batteries. **2022**, 921, 166082		1
666	The nitrogen-doped carbon coated Na4MnV(PO4)3 as a high electrochemical performance cathode material for sodium-ion batteries. **2022**, 601, 154218		1
665	All-solid-state lithium batteries featuring hybrid electrolytes based on Li+ ion-conductive Li7La3Zr2O12 framework and full-concentration gradient Ni-rich NCM cathode. **2022**, 450, 138043		0
664	Bamboo-shaped Co@NCNTs as superior sulfur host for Li-S batteries. **2022**, 601, 154245		0
663	A dimensionally stable lithium alloy based composite electrode for lithium metal batteries. **2022**, 450, 138074		1
662	Identifying Redox Orbitals and Defects in Lithium-Ion Cathodes with Compton Scattering and Positron Annihilation Spectroscopies: A Review. **2022**, 7, 47		0
661	Editors' Choice—Methods—Pressure Control Apparatus for Lithium Metal Batteries.		1
660	New Type Anode for Calcium Ion Batteries Based on Silicon Carbide Monolayer.		1
659	Iterative Synthesis of Contorted Macromolecular Ladders for Fast-Charging and Long-Life Lithium Batteries. *Journal of the American Chemical Society*,	16.4	2
658	High Voltage LiCoO2 Cathodes with High Purity Lithium Bis(oxalate) Borate (LiBOB) for Lithium-Ion Batteries.		
657	High Energy Density Electrode Materials with the Disordered Rocksalt Structure. **2022**, 58, 567-573		

656	Recycling the Waste LiMn2O4 of Spent Li-ion Batteries by pH Gradient in Neutral Water Electrolyser. **2022**, 100205	
655	Solid Li- and Na-Ion Electrolytes for Next Generation Rechargeable Batteries.	3
654	CMK-3 modified separator for ultra-high stability performance Cu1.8Se aluminum batteries.	
653	Two-Dimensional Pentagraphyne as a High-Performance Anode Material for Li/Na-Ion Rechargeable Batteries.	2
652	Customized design of electrolytes for high-safety and high-energy-density lithium batteries. **2022**, 100082	
651	Rare-Earth Element Substitution of Na1+xZr2SixP3□O12 (x = 2) Solid Electrolyte: Implications for All-Solid-State Na Ion Batteries.	1
650	A highly-efficient electrocatalyst for room temperature sodium-sulfur batteries: assembled nitrogen-doped hollow porous carbon spheres decorated with ultrafine □MoC1- nanoparticles. **2022**,	2
649	A well-controlled cracks and gliding-free single-crystal Ni-rich cathode for long-cycle-life lithium-ion batteries. **2022**, 166375	1
648	Metal-organic frameworks (MOFs) and their derivative as electrode materials for lithium-ion batteries. **2022**, 470, 214715	6
647	Facile fabrication of a high performance TiNb2O7 anode for large-scale electrical energy storage.	1
646	Monodispersed flower-like MXene@VO2 clusters for aqueous zinc ion batteries with superior rate performance. **2022**, 14, 11655-11663	1
645	Advances in studying interfacial reactions in rechargeable batteries by photoelectron spectroscopy.	3
644	Investigating the abnormal conductivity behaviour of divalent cations in low dielectric constant tetraglyme-based electrolytes.	0
643	Lignin derived carbon materials: current status and future trends. **2022**, 1,	9
642	Coaxial hard carbon coated carbon nanotubes as anodes for sodium-ion batteries.	
641	On the connection between slurry rheology and electrochemical performance of graphite anodes in Lithium-ion batteries. **2022**, 141, 107353	
640	N-Doped Carbon-Layer-Modified Na3V2(PO4)3 as a High-Performance Cathode Material for Sodium-Ion Batteries.	1
639	Inorganic-Rich and Flexible Solid-Electrolyte Interphase Formed Over Dipole-Dipole Interaction for Highly Stable Lithium-Metal Anodes. 2205304	0

638	Leveraging Synergies by Combining Polytetrafluorethylene with Polyvinylidene Fluoride for Solvent-Free Graphite Anode Fabrication.	
637	In Situ Visualization of Electrochemical Processes in Solid-State Lithium Batteries. 2988-3002	3
636	Ethynyl functionalized porphyrin complex as a new cathode for organic alkali metal batteries with excellent cycling stability. **2022**, 138734	2
635	Critical Review on cathode–electrolyte Interphase Toward High-Voltage Cathodes for Li-Ion Batteries. **2022**, 14,	3
634	The Origin of High-Voltage Stability in Single-Crystal Layered Ni-Rich Cathode Materials.	
633	Perception of Mg adsorption on the BC2N nanotube as a anode for rechargeable Mg ion batteries. **2022**, 47, 29006-29013	
632	Selective lithiation and lithium induced nano sticks formation unveil caffeine for ultra-long-term stability at high C-rate and high power density lithium-ion battery. **2022**, 141082	
631	Composites Based on Lithium Titanate with Carbon Nanomaterials as Anodes for Lithium-Ion Batteries. **2022**, 58, 658-666	
630	The Origin of High-Voltage Stability in Single-Crystal Layered Ni-Rich Cathode Materials.	0
629	High-Dimensional Neural Network Potential for Liquid Electrolyte Simulations. **2022**, 126, 6271-6280	2
628	Controlling the Phase Separation of Dimethyl Carbonate Solvents Using a Dual-Cation System: Applications in High-Power Lithium Ion-Based Hybrid Capacitors.	0
627	Insight into the use of ionic liquid-based polymer electrolyte for super capacitor application (RAFM-2022). 095400832211110	
626	Vat Orange 7 as an Organic Electrode with Ultrafast Hydronium-ion Storage and Super-long Life for Rechargeable Aqueous Zinc Batteries. **2022**, 138776	1
625	Highly Sensitive Detection and Mapping of Incipient and Steady-State Oxygen Evolution from Operating Li-Ion Battery Cathodes via Scanning Electrochemical Microscopy. **2022**, 169, 086501	0
624	Surface Modification of Hollow Nanostructured Materials for Energy Storage.	0
623	A new twist for lithium batteries.	0
622	Preparation of Spinel Form Co3O4 and CoO2 Thin Film at Low Temperature by Electrochemical Method as a Thin Film Oxide Layer. **2022**, 11, 081014	
621	Highly Reversible Sodium Metal Battery Anodes via Alloying Heterointerfaces. 2203409	1

620	Effect of ionotropic gelation of COOH-functionalized polymeric binders in multivalent ion batteries. **2022**, 26, 1969-1980	
619	Crosslinked Nanofiber-Reinforced Solid-State Electrolytes with Polysulfide Fixation Effect Towards High Safety Flexible Lithium–Sulfur Batteries. 2203272	4
618	Is there a common reaction pathway for chromium sulfides as anodes in sodium-ion batteries? A case study about sodium storage properties of MCr2S4 (M = Cr, Ti, Fe).	0
617	Extending the low-temperature operation of sodium metal batteries combining linear and cyclic ether-based electrolyte solutions. **2022**, 13,	6
616	Application-Based Prospects for Dual-Ion Batteries.	
615	TSFZ Growth and Anisotropic Ionic Conductivity of Zr-Doped LiCoO2 Single Crystals.	
614	Synthesis of graphene-supported LiFePO4/C materials via solid-state method using LiFePO4(OH) as precursors.	0
613	Study on annealing treatment of spinel LiNi 0 . 5 Mn 1 . 5 O 4 as cathode materials for high-voltage lithium-ion batteries.	0
612	A quasi-solid-state electrolyte with high ionic conductivity for stable lithium-ion batteries.	0
611	Electrochemical Characterization and Microstructure Evolution of Ni-Rich Layered Cathode Materials by Niobium Coating/Substitution.	2
610	Machine Learning Predicts the X-ray Photoelectron Spectroscopy of the Solid Electrolyte Interface of Lithium Metal Battery. 8047-8054	1
609	Li+ Transport in Single-Ion Conducting Side-Chain Polymer Electrolytes with Nanoscale Self-Assembly of Ordered Ionic Domains.	2
608	Separation of Li and Al from spent ternary Li-ion batteries by in-situ aluminum-carbon reduction roasting followed by selective leaching. **2022**, 213, 105941	0
607	A comprehensive state-of-the-art review of electrochemical battery storage systems for power grids.	1
606	Quantitative comparison of different approaches for reconstructing the carbon-binder domain from tomographic image data of cathodes in lithium-ion batteries and its influence on electrochemical properties.	0
605	Sandwich-like CoMoP2/MoP heterostructures coupling N, P co-doped carbon nanosheets as advanced anodes for high-performance lithium-ion batteries.	11
604	Improving Li reversibility in Li metal batteries through uniform dispersion of Ag nanoparticles on graphene.	1
603	Molecular self-assembly derived hollow mesoporous carbon nanospheres with different pore and wall structure as ultra-stable anode for sodium-ion batteries. **2022**, 141080	

602	Self-Protecting Aqueous Lithium-Ion Batteries. 2203035	0
601	Zinc oxide nanotubes for high-performance lithium-ion battery anodes: experimental insights from computational results. **2022**,	
600	Fundamental investigations on the sodium-ion transport properties of mixed polyanion solid-state battery electrolytes. **2022**, 13,	0
599	Charge Transfer in Metallocene Intercalated Transition Metal Dichalcogenides. **2022**, 126, 13994-14002	
598	Three-dimensional Ti3C2 MXene@silicon@nitrogen-doped carbon foam for high performance self-standing lithium-ion battery anodes. **2022**, 921, 116664	0
597	Cathode-electrolyte integrating strategy enabling solid-state lithium metal battery with enhanced cycle stability. **2022**, 544, 231891	1
596	Cobalt in high-energy-density layered cathode materials for lithium ion batteries. **2022**, 544, 231873	2
595	Environmental-friendly low-cost direct regeneration of cathode material from spent LiFePO4. **2022**, 924, 166612	1
594	Molecular-level solvation and selectivity behavior of Na+, K+, and Li+ within glycerol-derived solvents. **2022**, 262, 117992	1
593	Electrochemical generation of birnessite MnO2 nanoflowers for intercalation of Mg2+ ions. **2022**, 102, 107696	0
592	Realizing rapid electrochemical kinetics of Mg2+ in Ti-Nb oxides through a Li+ intercalation activated strategy toward extremely fast charge/discharge dual-ion batteries. **2022**, 52, 94-103	0
591	Balancing the anions adsorption and intercalation in carbon cathode enables high energy density dual-carbon lithium-ion capacitors. **2022**, 200, 28-37	0
590	Energy generation mechanisms for a Li-ion cell in case of thermal explosion: A review. **2022**, 55, 105501	1
589	Enhanced electrochemical performance of MgFe2O4/SrTiO3 and MgFe2O4/SiO2 nanocomposite structures. **2022**, 925, 166660	
588	In situ synthesis of a self-supported MnO2-based cathode for high-performance zinc-ion batteries by K+ pre-intercalation. **2022**, 604, 154578	2
587	Cobalt hexacyanoferrate enhanced by common ion effect for aqueous potassium-ion batteries. **2022**, 604, 154654	
586	Spray-drying Al onto hydroxide precursors to prepare LiNi0.855Co0.095Al0.05O2 as a highly stable cathode for lithium-ion batteries. **2022**, 926, 166753	0
585	Anodic TiO2 nanotubes: A promising material for energy conversion and storage. **2022**, 29, 101613	0

584	The role of active passivated interface in poly (ethylene oxide) electrolyte for 4.2 V solid-state lithium metal batteries. **2023**, 451, 138680	
583	The Renaissance of High-Capacity Cathode Materials for Lithium Ion Cells. **2022**, 181-208	0
582	Simulating key properties of lithium-ion batteries with a fault-tolerant quantum computer. **2022**, 106,	1
581	Thermally Stable and Dendrite-Resistant Separators toward Highly Robust Lithium Metal Batteries. 2202206	1
580	Lithium-Ion Battery Testing Capable of Simulating Ultralow Lunar Temperatures. 2200799	0
579	Fast proton and water transport in ceramic membrane-based magic-angle graphene. **2022**, 225, 119076	0
578	Preparation of hollow SnO2@N-C nanospheres for high performance lithium-ion battery. **2022**, 922, 116741	0
577	Green algae as a sustainable source for energy generation and storage technologies. **2022**, 53, 102658	0
576	Enhancing the lithium storage performance of Ni(OH)2 with Zn2+ doping. **2022**, 922, 116747	0
575	Tailored architectures of mesoporous carbon nanostructures: From synthesis to applications. **2022**, 46, 101607	1
574	Two-dimensional penta-siligraphene with high performance for non-lithium metal ions batteries anode materials. **2022**, 385, 116020	0
573	Investigating the influence of the calendering process on the 3D microstructure of single-layer and two-layer cathodes in lithium-ion batteries using synchrotron tomography. **2022**, 548, 231960	0
572	Dendrite-free Li metal anodes with confined volume change towards long lifetime. **2022**, 301, 122040	1
571	A thermal-electrochemical-mechanical coupled model based on non-equilibrium thermodynamics of Li-ion batteries. **2022**, 55, 105655	0
570	Metal organic framework-derived heteroatom-doped nanoarchitectures for electrochemical energy storage: Recent advances and future perspectives. **2022**, 52, 685-735	2
569	Bi-functional inhibitors of zinc corrosion and dendrite formation in aqueous electrolyte: Insights from experiments and theoretical calculations. **2022**, 208, 110619	0
568	Nanoscale advanced carbons as an anode for lithium-ion battery. **2022**, 16, 100290	1
567	In situ mitigating cation mixing of Ni-rich cathode at high voltage via Li2MnO3 injection. **2022**, 53, 212-221	0

566	Hydrogen passivated □2-borophene nanoribbon: A propitious one-dimensional metallic anode for sodium-ion rechargeable batteries. **2022**, 606, 154825	0
565	First-principles calculations study of TiS2/Ti2CS2 heterostructure as an anode material for Li/Na/K-ion batteries. **2022**, 215, 111784	0
564	Poly tannic acid carbon rods as anode materials for high performance lithium and sodium ion batteries. **2023**, 629, 832-845	1
563	High-rate Ni-rich single-crystal cathodes with highly exposed {0 1 0} active planes through in-situ Zr doping. **2023**, 452, 139336	1
562	Toward highly reversible aqueous zinc-ion batteries: nanoscale-regulated zinc nucleation via graphene quantum dots functionalized with multiple functional groups. **2023**, 452, 139090	2
561	Fabrication of a Porous Polymer Electrolyte from Poly(Vinylidene Fluoride-Hexafluoropropylene) Via a One-Step Reactive Vapor Induced Phase Separation for Lithium Ion Battery.	0
560	DFT□ReaxFF hybrid molecular dynamics investigation of the decomposition effects of localized high-concentration electrolyte in lithium metal batteries: LiFSI/DME/TFEO. **2022**, 24, 18684-18690	0
559	Regulating the electronic structure of MoO2/Mo2C/C by heterostructure and oxygen vacancies for boosting lithium storage kinetics. **2022**, 51, 12620-12629	0
558	Lattice distortion derived catalytic degradation in multi-oxide cathode catalyst for Li□xygen batteries. **2022**, 10, 18078-18086	0
557	Sea-urchin-like iron-cobalt phosphide as an advanced anode material for lithium ion batteries. **2022**, 3, 7235-7240	1
556	In situ prepared poly(ether-ester)-based gel polymer electrolytes for high-performance lithium metal batteries.	2
555	Lithium-Ion Battery Separators Based-On Nanolayer Co-Extrusion Prepared Polypropylene Nanobelts Reinforced Cellulose.	0
554	Phenothiazine/Reduced Graphene Oxide Composite as a Pseudocapacitive Cathode for Lithium Ion Capacitors.	0
553	A Combined Multiphysics Modeling and Deep Learning Framework to Predict Thermal Runaway in Cylindrical Li-Ion Batteries.	0
552	Design principles of nitrogen-doped graphene nanoribbons as highly effective bifunctional catalysts for Li□2 batteries. **2022**, 24, 22589-22598	0
551	Mechanically-based design of lithium-ion batteries: a perspective.	0
550	Recent progress in ZnCo2O4 and their composites for energy storage and conversion: A review.	1
549	A strategy for anode modification for future zinc-based battery application.	1

548	Theoretical design of high-performance halogen anion batteries with MXene electrodes: influence of functional groups, metals, and anions.	1
547	In-Operando Gc-Ms: A New Tool for the Understanding of Degradation Processes Occurring in Electrochemical Capacitors.	0
546	A Composite Solid-State Electrolyte Comprised of Garnet-Type Li _{6.5}La ₃Zr _{1.5}Ta _{0.1}Nb _{0.4}O ₁₂ Filler in PEO Matrix for High Energy Lithium Metal Battery.	0
545	A two-dimensional conductive polymer/V2O5 composite with rapid zinc-ion storage kinetics for high-power aqueous zinc-ion batteries. **2022**, 14, 12013-12021	1
544	Enabling Highly Stable Lithium Metal Battery by Dual-function Additive Catalyzed In-Built Quasi-Solid-State Polymer Electrolytes.	0
543	The effects of aluminum concentration on the microstructural and electrochemical properties of lithium lanthanum zirconium oxide.	0
542	Metal organic framework optimized hybrid solid polymer electrolytes with a high lithium-ion transference number and excellent electrochemical stability. **2022**, 6, 4528-4538	1
541	Practical conversion-type titanium telluride anodes for high-capacity long-lifespan rechargeable aqueous zinc batteries. **2022**, 10, 16976-16985	1
540	Tackling the Challenges in High Capacity Silicon Anodes for Li-Ion Cells. **2022**, 149-180	0
539	Design of an aluminium ion battery with a graphyne host: lowest volume expansion, high stability and low diffusion barriers. **2022**, 4, 3870-3882	0
538	High-Rate Soft Carbon Anode in Potassium Ion Batteries:The Role of Chemical Structures of Pitches.	0
537	Molecular structure design of planar zwitterionic polymer electrode materials for all-organic symmetric batteries.	0
536	Carbon-Based Nanomaterials for Metal-Air Batteries. **2022**, 249-270	0
535	Ni activated Mo2C by regulating the interfacial electronic structure for highly efficient lithium-ion storage.	0
534	Field Grand Challenge for Membrane Science and Technology. 1,	0
533	In-situ oriented oxygen-defect-rich Mn N O via nitridation and electrochemical oxidation based on industrial-scale Mn2O3 to achieve high-performance aqueous zinc ion battery. **2023**, 76, 11-18	2
532	In situ characterizations of advanced electrode materials for sodium-ion batteries toward high electrochemical performances. **2023**, 76, 146-164	1
531	Carbon Nanotube Current Collector for Anode-free Battery. **2022**, 23, 2149-2155	1

530	A Certain Investigation of Nanomaterial-Based Li-Ion Batteries for Electrical Vehicles. **2022**, 2022, 1-6	0
529	????-???????????. **2022**,	0
528	Dual-Use of Seawater Batteries for Energy Storage and Water Desalination. 2107913	0
527	High Formability Bromide Solid Electrolyte with Improved Ionic Conductivity for Bulk-Type All-Solid-State Lithium Metal Batteries. **2022**, 5, 10604-10610	0
526	Regulating surface electron structure of PtNi nanoalloy via boron doping for high-current-density Li-O 2 batteries with low overpotential and long-life cyclability.	0
525	Stabilized cathode/sulfide solid electrolyte interface via Li2ZrO3 coating for all-solid-state batteries. **2022**, 41, 3639-3645	1
524	Salt-in-Salt Reinforced Carbonate Electrolyte for Li Metal Batteries.	2
523	In-situ construction of Mn Fe mixed oxides nanoparticles on reduced graphene oxide with superior lithium storage property. **2022**, 47, 34605-34615	0
522	Strategies to enhance Li+ transference number in liquid electrolytes for better lithium batteries.	0
521	Noncoordinating Flame-Retardant Functional Electrolyte Solvents for Rechargeable Lithium-Ion Batteries.	2
520	Structure-Activity Relationships of a Ni-MOF, a Ni-MOF-rGO, and pyrolyzed Ni/C@rGO Structures for Sodium- ion Batteries. **2022**, 7,	0
519	The (Electro)Chemistry of Ethylene Carbonate, Water and HF at the Negative Electrode in Li-ion Batteries.	0
518	Progress and challenges of prelithiation technology for lithium-ion battery.	0
517	Salt-in-Salt Reinforced Carbonate Electrolyte for Li Metal Batteries.	0
516	Recent Progress on High-Voltage and Fast-Charge Electrolytes for Lithium-Ion Batteries.	0
515	Effects of different glass formers on Li 2 S P 2 S 5 MS 2 (M = Si, Ge, Sn) chalcogenide solid-state electrolytes.	0
514	Battery materials for electric vehicle A comprehensive review. **2022**,	0
513	Grafted Copolymer Electrolytes Based on the Poly(acrylic acid-co-oligo ethylene glycol acrylate) (P(AA-co-OEGA)) Ion-Conducting and Mechanically Robust Block.	0

512	Understanding the Degradation of a Model Si Anode in a Li-Ion Battery at the Atomic Scale. **2022**, 13, 8416-8421	0
511	Rechargeable Dual-Carbon Batteries: A Sustainable Battery Technology. 2202450	1
510	Enabling stable 4.6 V LiCoO2 cathode through oxygen charge regulation strategy. **2022**,	0
509	Recent Progress in Developing a LiOH-based Reversible Nonaqueous Lithium-Air Battery. 2201384	1
508	Integrated Ni and Li-rich Layered Oxide Cathode Materials for High Voltage Cycling in Rechargeable Li-ion Batteries.	0
507	A Gel Polymer Electrolyte with 2D Filler-reinforced for Dendrite Suppression Li-Ion Batteries.	0
506	Lithium-Ion Batteries The Crux of Electric Vehicles with Opportunities and Challenges. **2022**, 4, 908-930	3
505	Carbonaceous-Material-Induced Gelation of Concentrated Electrolyte Solutions for Application in Lithium Sulfur Battery Cathodes.	0
504	Critical perspective on smart thermally self-protective lithium batteries. **2022**,	1
503	Ion Solvent Interplay in Concentrated Electrolytes Enables Subzero Temperature Li-Ion Battery Operations. **2022**, 14, 41934-41944	0
502	Spreading the full spectrum of layer-structured compounds for kinetics-enhanced aqueous multivalent metal-ion batteries. **2022**,	1
501	Battery Materials Discovery and Smart Grid Management using Machine Learning.	0
500	CO2 Laser Sintering of Garnet-Type Solid-State Electrolytes. 3392-3400	1
499	Thermally Durable Electrolyte for Lithium-Ion Battery. **2022**, 141132	0
498	Synergy Effect of High-Stability of VS4 Nanorods for Sodium Ion Battery. **2022**, 27, 6303	0
497	Rigid-Rod Sulfonated Polyamide as an Aqueous-Processable Binder for Li-Ion Battery Electrodes.	0
496	P-Doped Cotton Stalk Carbon for High-Performance Lithium-Ion Batteries and Lithium Sulfur Batteries. **2022**, 38, 11610-11620	1
495	Ultrafine Mix-Phase SnO-SnO2 Nanoparticles Anchored on Reduced Graphene Oxide Boost Reversible Li-Ion Storage Capacity beyond Theoretical Limit. **2022**, 16, 15358-15368	0

494	Regulating Polysulfide Conversion Kinetics Using Tungsten Diboride as Additive For High-Performance Li$ Battery. 2203222	1
493	Effect of a One-Dimensional Columnar Structure on the Cathode Active Material Performance of Single-Component Hexaazatriphenylene Derivatives.	0
492	Pre-constructed SEI on graphite-based interface enables long cycle stability for dual ion sodium batteries. **2022**, 107832	0
491	Structural Complexity and Evolving Lithium-Ion Dynamics within the Cathode Material LiFeV2O7 Revealed by Diffraction and Solid-State NMR.	0
490	Anion doping in LiCoO2 cathode materials for Li-ion batteries: a first-principles study.	0
489	Enthalpic and Entropic Contributions to Fast Lithium Ion Conduction in Solid-State Aqueous Polymer Electrolytes. **2022**, 126, 16777-16784	0
488	Soft-rigid sandwich-structured hybrid electrolytes based on polymer-in-ceramic electrolytes for stable-cycle solid-state lithium-metal batteries.	0
487	Conductivity enhancement within garnet-rich polymer composite electrolytes via the addition of succinonitrile.	0
486	Facile synthesis of yolk-shell CoS2@FeS2@NC hollow microspheres for advanced lithium-ion batteries anode materials.	0
485	Stabilizing Li-rich Layered Cathode Materials using a LiCoMnO4 Spinel Nanolayer for Li-ion Batteries. **2022**, 12, 3425	0
484	Columnar Liquid-crystalline Triazine-based Dendrimer with Carbon Nanotube Filler for Efficient Organic Lithium-ion Batteries. **2022**, 141306	0
483	2D Dumbbell Silicene as a High Storage Capacity and Fast Ion Diffusion Anode for Li-Ion Batteries.	0
482	Understanding the role of Co in the Ni-rich cathode materials for Li-ion batteries.	0
481	Construction of Polyvinylidene Fluoride Buffer Layers for Li1.3Al0.3Ti1.7(PO4)3 Solid-State Electrolytes toward Stable Dendrite-Free Lithium Metal Batteries.	0
480	Modeling contact behavior of multi particles and particle-current collector contact in porous electrode.	2
479	Metal organophosphates: electronic structure tuning from inert materials to universal alkali-metal-ion battery cathodes.	0
478	Solid-State NMR Studies of Coatings and Interfaces in Batteries. **2022**, 101638	0
477	Recent advances in NASICON-type oxide electrolytes for solid-state sodium-ion rechargeable batteries.	0

476	Flame-Retardant Crosslinked Polymer Stabilizes Graphite–Silicon Composite Anode for Self-Extinguishing Lithium-Ion Batteries. 2202779	0
475	Poly(ethylene oxide)-Based Composite Electrolyte with Lithium-Doped High-Entropy Oxide Ceramic Enabled Robust Solid-State Lithium-Metal Batteries.	0
474	Lithiophilic SnF2 modification on carbon fiber cloth enabling uniform Li deposition for stable lithium metal anodes. **2022**, 655, 130196	0
473	Metallothermic-synchronous construction of compact dual-two-dimensional MoS2-graphene composites for high-capacity lithium storage. **2022**, 103, 107850	1
472	In-situ synthesis of porous metal fluoride@carbon composite via simultaneous etching/fluorination enabled superior Li storage performance. **2022**, 103, 107862	2
471	Oxygen vacancy-rich Fe3O4 nanoparticle synthesized via facile electrochemical method as anode material for high-performance lithium-ion batteries. **2022**, 171, 111028	0
470	Design and Analysis of the Electrical Properties of a Solid-State Lithium-Boron-Phosphate Electrolyte. **2021**, 3, 47-51	0
469	Stabilizing Surface of Ni-Rich Cathode via Facing-Target Sputtering for High-Performance Lithium-Ion Batteries.	0
468	Molecular engineering of fluoroether electrolytes for lithium metal batteries.	0
467	Strategies and challenges of carbon materials in the practical applications of lithium metal anode: a review.	2
466	Towards the Intercalation and Lithium Plating Mechanism for High Safety and Fast-Charging Lithium-ion Batteries: A Review. 1,	0
465	Development of Vang Danh anthracite as a cost-effective anode for sodium-ion batteries through a heat-treatment process. **2022**, 12, 29900-29907	0
464	The Impact of Residual Solvent on Catholyte Performance in Solid-State Batteries.	0
463	The Role of Interfaces in Ionic Liquid-Based Hybrid Materials (Ionogels) for Sensing and Energy Applications. 2201405	3
462	Transition Metal Carbides Filler-Reinforced Composite Polymer Electrolyte for Solid-State Lithium-Sulfur Batteries at Room Temperature: Breakthrough. **2022**, 15, 7827	0
461	Revealing solid electrolyte interphase formation through interface-sensitive Operando X-ray absorption spectroscopy. **2022**, 13,	2
460	Scalable Fabrication of Si-Graphene Composite as Anode for Li-ion Batteries. **2022**, 12, 10926	1
459	Solvent-free protic liquid enabling batteries operation at an ultra-wide temperature range. **2022**, 13,	0

458	Coupled Electrochemical-Thermal-Mechanical Modeling and Simulation of Lithium-Ion Batteries. **2022**, 169, 100535	0
457	Core-shell structure and 3D CNTs networks promote Si@Cu nanoparticle anodes with enhanced reversible capacity and cyclic performance for Li-ion batteries. **2022**,	0
456	Electrochemical performance of KTiOAsO4 (KTA) in potassium-ion batteries from density-functional theory. **2022**, 6,	0
455	Recent advances based on Mg anodes and their interfacial modulation in Mg batteries. **2022**,	0
454	Unveiling the relationship between micro characteristics of particles and electrode performance in a 60 Ah high-energy-density Li-ion pouch cell. **2022**, 141330	0
453	Decoupled Solar Energy Storage and Dark Photocatalysis in a 3D Metal-organic Framework. 2207280	1
452	Preparation of silicon/carbon hybrid anodes for high performance lithium-ion batteries. **2022**,	0
451	Binary Metal Single Atom Electrocatalysts with Synergistic Catalytic Activity toward High-Rate and High Areal-Capacity Lithium–Sulfur Batteries. 2208666	3
450	Latticed-Confined Conversion Chemistry of Battery Electrode. 2204912	1
449	Atomic-Scale Cryo-TEM Studies of the Thermal Runaway Mechanism of Li1.3Al0.3Ti1.7P3O12 Solid Electrolyte. 3855-3863	1
448	Ultrathin Ti 3 C 2 T x nanosheets modified separators for Lithium-sulfur batteries.	0
447	BC2N nanotube as a promising anode for rechargeable calcium ion batteries. **2022**, 126926	0
446	Homogenous metallic deposition regulated by abundant lithiophilic sites in nickel/cobalt oxides nanoneedle arrays for lithium metal batteries. **2022**,	0
445	Improved Low-Temperature Performance of Li-S Batteries via Solid-Solid Conversion of Sulfur. **2022**, 169, 100529	0
444	Suppressing Chemical Corrosions of Lithium Metal Anodes. 2202012	0
443	V 2 O 5 as a versatile electrode material for post-lithium energy storage systems.	0
442	Graphene Quantum Dots: Novel Properties and Their Applications for Energy Storage Devices. **2022**, 12, 3814	2
441	Unraveling the Nature and Role of Layered Cation Ordering in Cation-Disordered Rock-Salt Cathodes. **2022**, 144, 19838-19848	0

440	Significant regulation of stress on the contribution of optical phonons to thermal conductivity in layered Li2ZrCl6: First-principles calculations combined with the machine-learning potential approach. **2022**, 121, 172201	1
439	Accurate Electronic Properties and Intercalation Voltages of Olivine-Type Li-Ion Cathode Materials from Extended Hubbard Functionals. **2022**, 1,	1
438	How to Promote the Industrial Application of SiO x Anode Prelithiation: Capability, Accuracy, Stability, Uniformity, Cost, and Safety. 2202342	1
437	Tailoring grain boundary structures and chemistry of Li7La3Zr2O12 solid electrolytes for enhanced air stability. **2022**,	0
436	Improved electrochemical properties of nickel-rich cathode with aluminum-titanium doping and lithium phosphate coating. **2022**, 386, 116051	0
435	Infrared Spectroscopy of Li+ Solvation in EmimBF4 and in Propylene Carbonate: Ab Initio Molecular Dynamics and Experiment.	0
434	Lithium-ion battery separators based-on nanolayer co-extrusion prepared polypropylene nanobelts reinforced cellulose. **2022**, 121120	0
433	Facile molten salt synthesis of carbon-anchored TiN nanoparticles for durable high-rate lithium-ion battery anodes. **2022**, 1, 045102	0
432	Manganese-based NASICON structured Na1+2Mn Ti2-(PO4)3 as promising cathode in aqueous sodium ion battery. **2022**, 167872	0
431	Rose-like VS2 Self-Assembled from Nanosheets with Superior Sodium Storage Performance.	0
430	Recent Progress in Constructing Halogenated Interfaces for Highly Stable Lithium Metal Anodes. **2022**,	1
429	An overlooked parameter in Li-S batteries: The impact of electrolyte-to-sulfur ratio on capacity fading. **2022**, 104, 107913	1
428	A review on recent key technologies of lithium-ion battery thermal management: External cooling systems. **2022**, 16, 100703	1
427	Enhanced electrochemical performance of NASICON-type sodium ion cathode based on charge balance theory. **2022**, 53, 881-889	2
426	Tuning the interface interaction between Nb2O5 nanosheets/graphene for high current rate and long cyclic lithium-ion batteries. **2022**, 435, 141397	0
425	Phenothiazine/reduced graphene oxide composite as a pseudocapacitive cathode for lithium ion capacitors. **2022**, 434, 141340	1
424	Recycled value-added circular energy materials for new battery application: Recycling strategies, challenges, and sustainability-a comprehensive review. **2022**, 10, 108728	0
423	Dealloying-induced modulation upon porous layer depth of three-dimensional copper current collector for improving lithium plating/stripping capability. **2022**, 435, 141337	0

422	State-of-electrode (SOE) analytics of lithium-ion cells under overdischarge extremes. **2023**, 54, 60-74	0
421	A poly(ether block amide) based solid polymer electrolyte for solid-state lithium metal batteries. **2023**, 630, 595-603	0
420	Anti-pulverization intermetallic Fe Sn anchored on N-doped carbon anode boosted superior power and stable lithium storage. **2023**, 553, 232272	0
419	Constructing a 700 Wh kg -level rechargeable lithium sulfur pouch cell. **2023**, 76, 181-186	0
418	Structure dependence of fracture toughness and ionic conductivity in lithium borophosphate glassy electrolytes for all-solid-state batteries. **2023**, 553, 232302	0
417	A Li2CO3 sacrificial agent for anode-free lithium metal batteries. **2023**, 454, 140029	0
416	A nano rod-like MnO2 supported on carbon nanotubes modified separator inhibiting polysulfide shuttle in Li-S batteries. **2023**, 933, 167767	0
415	Lithium sensors based on photophysical changes of 1-aza-12-crown-4 naphthalene derivatives synthesized via Buchwald Hartwig amination. **2022**, 12, 31976-31984	0
414	Polysulfide shuttle mitigation through a tailored separator for critical temperature energy-dense lithium sulfur batteries.	0
413	Mediating the Li Diffusion Path in Composite Polymer Electrolytes by mesoporous SBA-15 for All-Solid-State Lithium Batteries.	0
412	Remaining useful life prediction of the lithium-ion battery based on CNN-LSTM fusion model and grey relational analysis. **2022**, 31, 633-655	1
411	Evidence of a reversible redox reaction in a liquid-electrolyte-type fluoride-ion battery. **2022**, 12, 31786-31791	0
410	A novel strategy via electrode catalysis induced nano transformation for lithiated-bimetallic-oxides to avoid the long activation process of advanced lithium-ion batteries.	0
409	Enhancing the reversibility of Li deposition/dissolution in sulfur batteries using high-concentration electrolytes to develop anode-less batteries with lithium sulfide cathode. **2023**, 554, 232323	0
408	Separators with reactive metal oxide coatings for dendrite-free lithium metal anodes. **2023**, 555, 232336	0
407	Controlled prelithiation of siloxene nanosheet anodes enables high performance 5 V-class lithium-ion batteries. **2023**, 454, 140136	0
406	Rapid discovery of inorganic-organic solid composite electrolytes by unsupervised learning. **2023**, 454, 140151	0
405	Effective stripping and reutilization of LiFePO4 cathode waste from retired lithium ion batteries. **2022**,	0

404	Focus on the Electroplating Chemistry of Li Ions in Nonaqueous Liquid Electrolytes: Toward Stable Lithium Metal Batteries. **2022**, 5,	0
403	Decavanadate-Type Polyoxometalate Anions Encapsulated in a MIL-100 Framework with Enhanced Mixed Ion□Electron Conduction and Potential Application as Cathode Materials for a Lithium Ion Battery.	0
402	Probing Capacity Trends in MLi2Ti6O14 Lithium-Ion Battery Anodes Using Calorimetric Studies.	0
401	Advances of Carbon Materials for Dual-Carbon Lithium-Ion Capacitors: A Review. **2022**, 12, 3954	0
400	Highly Stable Lithium Metal Anode Enabled by Constructing Lithiophilic 3D Interphase on Robust Framework. **2022**, 140468	1
399	Recent advances and perspectives for Zn-based batteries: Zn anode and electrolyte. **2022**,	2
398	High-performance Aqueous Zinc-organic Battery Achieved by Reasonable Molecular Design.	0
397	Electrochemical Modeling in a Building Blocks□Way. **2022**, 140419	0
396	Understanding and Control of Activation Process of Lithium-Rich Cathode Materials. **2022**, 5,	0
395	Li reaction pathways in Ge and high-performance Ge nanocomposite anodes for Li-ion batteries. **2022**, 140329	0
394	The electronic and geometric structure modifications of LiFePO4 with vanadium doping to achieve ultrafast discharging capability: The experimental and theoretical investigations. **2022**, 168035	0
393	Electrochemical Performance of Highly Ion-Conductive Polymer Electrolyte Membranes Based on Polyoxide-tetrathiol Conetwork for Lithium Metal Batteries.	1
392	First principles study of S-repaired ultra-thin InSe electrodes for ion storage and transport. **2022**, 140196	0
391	Local Electric Field-Promoted Kinetics and Interfacial Stability of Phosphorus Anode with Ionic Covalent Organic Framework. 2208514	1
390	Sensitivity of structural and electronic properties of Li-ion battery cathode materials to Hubbard U correction: an efficient first-principle approach. **2022**, 97, 125819	0
389	Building Polymeric Framework Layer for Stable Solid Electrolyte Interphase on Natural Graphite Anode. **2022**, 27, 7827	0
388	Vanadium Oxide-Poly(3,4-ethylenedioxythiophene) Nanocomposite as High-Performance Cathode for Aqueous Zn-Ion Batteries: The Structural and Electrochemical Characterization. **2022**, 12, 3896	0
387	Li8ZrO6 as a Pre-lithiation Additive for Lithium-Ion Batteries.	0

386	Closed-Loop Regeneration of a Spent LiFePO4 Cathode by Integrating Oxidative Leaching and Electrochemical Relithiation.	0
385	Nanographene Cathode Materials for Nonaqueous Zn-Ion Batteries. **2022**, 169, 110517	0
384	Lithium hexamethyldisilazide as electrolyte additive for efficient cycling of high-voltage non-aqueous lithium metal batteries. **2022**, 13,	3
383	Operando X-ray Studies of Ni-Containing Heteropolyvanadate Electrode for High-Energy Lithium-Ion Storage Applications.	0
382	Methodological Studies of the Mechanism of Anion Insertion in Nanometer-Sized Carbon Micropores.	0
381	Imine-Linked Triazine-Based Conjugated Microporous Polymers/carbon nanotube composites as Organic Anode Materials for Lithium-Ion Batteries. **2022**, 130496	0
380	Electrochemical characterizations of carbon decorated tin doped lithium titanate for lithium-ion battery anode applications. **2022**, 926, 116952	2
379	Ultra-fast non-equilibrium synthesis of cathode materials for Li-ion batteries. 2208974	0
378	Atomically Interlocked Chemistry Activated by Interstitial Sites in LiMn 2 O 4 Cathode. 2210731	0
377	Highly Conductive Solid Polymer Electrolytes by para-Fluoro/Thiol Clicked Diblock Copolymer Self-Assembly: Paving the Way for Nanostructured Materials for Lithium-Ion Conductivity.	0
376	Secondary Zinc–Air Batteries: A View on Rechargeability Aspects. **2022**, 8, 244	0
375	The protective effect and its mechanism for electrolyte additives on the anode interface in aqueous zinc-based energy storage devices. **2022**,	0
374	Multi-Ionic Capacity of Zn-Al/V 6 O 13 Systems Enable Fast-Charging and Ultra-Stable Aqueous Aluminium-Ion Batteries. **2022**, 9,	0
373	Oxide Cathodes: Functions, Instabilities, Self Healing, and Degradation Mitigations.	0
372	Prospective strategies for extending long-term cycling performance of anode-free lithium metal batteries. **2023**, 54, 689-712	1
371	A review on solutions to overcome the structural transformation of manganese dioxide-based cathodes for aqueous rechargeable zinc ion batteries. **2023**, 555, 232385	5
370	Revealing the surface-to-bulk degradation mechanism of nickel-rich cathode in sulfide all-solid-state batteries. **2023**, 54, 713-723	0
369	Oxide-Based Solid-State Batteries: A Perspective on Composite Cathode Architecture. 2201939	0

368	Advances in Fine Structure Optimizations of Layered Transition-Metal Oxide Cathodes for Potassium-Ion Batteries. 2202861	0
367	Metal-organic frameworks-derived advanced oxygen electrocatalysts as air-cathodes for Zn-air batteries: Recent trends and future perspectives.	0
366	Electrochemical methods contribute to the recycling and regeneration path of lithium-ion batteries. **2023**, 55, 606-630	0
365	High-rate soft carbon anode in potassium ion batteries: The role of chemical structures of pitches. **2023**, 203, 211-220	0
364	Design of phase-structure for sodium chloride solid electrolytes with outstanding performance: First-principles approach.	0
363	Conformal carbon nitride thin film inter-active interphase heterojunction with sustainable carbon enhancing sodium storage performance.	0
362	Origin of over-cycling tolerance achieved by metal phosphate coating for transition metal oxide lithium-ion batteries. **2023**, 389, 116105	0
361	Ether-Based Electrolytes enable Nitrogen and Sulfur Co-doped 3D Graphene Frameworks for High-performance Sodium-Ion Batteries.	0
360	A new approach to stabilize the electrochemical performance of Li metal batteries through the structure alteration of CNT scaffolds. **2023**, 203, 426-435	0
359	Unraveling the intercalation chemistry of multi-electron reaction for polyanionic cathode Li3V2(PO4)3. **2023**, 55, 546-555	0
358	Na2Mn(CO3)2: A carbonate based prototype cathode material for Na-ion batteries with high rate capability – An ab-initio study. **2023**, 439, 141687	0
357	Structure regulation induced high capacity and ultra-stable cycling of conjugated organic cathodes for Li-ion batteries. **2022**, 11, 77-83	0
356	A multifunctional composite membrane for high-safety lithium-ion batteries.	0
355	A semi-fluid multi-functional binder for a high-performance silicon anode of lithium-ion batteries.	1
354	A Single Ion Gel Polymer Electrolyte based on Polyimide Grafted with Lithium 3-Chloropropanesulfonyl (Trifluoromethanesulfonyl) imide for High Performance Lithium Ion Batteries.	1
353	Search for stable host materials as low-voltage anodes for lithium-ion batteries: A mini-review. **2023**, 55, 364-387	0
352	3D carbon nanotube-mesoporous carbon sponge with short pore channels for high-power lithium-ion capacitor cathodes. **2023**, 203, 479-489	0
351	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

350	Solid electrolyte membrane-containing rechargeable high-temperature molten salt electrolyte-based batteries.	0
349	Liquid metallic Ga as sintering aid to promote the densification of garnet electrolytes for all-solid-state Li-ion batteries. **2023**, 556, 232527	0
348	Poly(arylene alkylene)s with pendent benzyl-tethered ammonium cations for anion exchange membranes. **2023**, 668, 121229	0
347	Transfer learning for battery smarter state estimation and ageing prognostics: Recent progress, challenges, and prospects. **2023**, 9, 100117	1
346	Direct regeneration of waste LiFePO4 cathode materials with a solid-phase method promoted by activated CNTs. **2023**, 157, 141-148	0
345	-BNP2 layered materials as auspicious anodes for Lithium batteries. **2023**, 295, 127146	0
344	Li-doping effects on the native defects and luminescence of Zn2GeO4 microstructures: Negative thermal quenching. **2023**, 245, 118606	0
343	Alkaline-earth metal doping in spinel LiMn2O4 cathode materials for Li-ion batteries: Insights from first-principles calculations. **2023**, 566, 111775	0
342	PEDOT-intercalated NH4V3O8 nanobelts as high-performance cathode materials for potassium ion batteries. **2023**, 633, 619-627	0
341	A 3D distributed circuit-electrochemical model for the inner inhomogeneity of lithium-ion battery. **2023**, 331, 120390	0
340	Large vacancy-defective graphene for enhanced lithium storage. **2023**, 10, 100237	0
339	BeN4 monolayer as an excellent Dirac anode material for potassium-ion batteries. **2023**, 936, 168351	0
338	Impact of carbon additives on lead-acid battery electrodes: A review. **2023**, 173, 113078	1
337	A strategy of enhancing the ionic conductivity of Li7La3Zr2O12 under accurate sintering conditions. **2022**, 24, 29159-29164	0
336	Capillary Suspension Based Ink Formulation for Stable Graphite Anode in Lithium-Ion Batteries. **2022**,	0
335	Emerging Chalcohalide Materials for Energy Applications.	1
334	Transient Modeling of a Vanadium Redox Flow Battery and Real-Time Monitoring of Its Capacity and State of Charge. **2022**, 61, 17557-17571	0
333	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

332	Atomic Layer Deposition for Electrochemical Energy: from Design to Industrialization. **2022**, 5,	0
331	Effect of Al and Fe Doping on the Electrochemical Behavior of Li1.2Ni0.133Mn0.534Co0.133O2 Li-Rich Cathode Material. **2022**, 15, 8225	1
330	Realization of superior ionic conductivity by manipulating the atomic rearrangement in Al-doped Li7La3Zr2O12. **2022**,	0
329	Lithium nitrate regulated carbonate electrolytes for practical Li-metal batteries: Mechanisms, principles and strategies. **2022**,	0
328	Thin-Film Lithium Cobalt Oxide for Lithium-Ion Batteries. **2022**, 15, 8980	0
327	Microbial pyrazine diamine is a novel electrolyte additive that shields high-voltage LiNi1/3Co1/3Mn1/3O2 cathodes. **2022**, 12,	0
326	The Electronic and Structural Properties of NaxSy Nanoclusters. **2022**, 17, 429-437	0
325	Enhanced Electrochemical Performance of LiNi1/3Co1/3Mn1/3O2 at a High Cut-Off Voltage of 4.6 V by Li1.3Al0.3Ti1.7(PO4)3 Coating. **2022**, 12, 1964	1
324	Monolayer Thiol Engineered Covalent Interface toward Stable Zinc Metal Anode.	1
323	Recent Advances in Electrolytes for Potassium-Ion Batteries. 2211290	0
322	Advances and Developments in Batteries and Charging Technologies. **2022**, 27-46	0
321	Acetylation Strategy for Unzipping Carbon Nanotubes in High-Performance Lithium-Ion Batteries. **2022**, 5, 18779-18787	0
320	Segmental Motion Adjustment of the Polycarbonate Electrolyte for Lithium-Metal Batteries. **2022**, 14, 55653-55663	0
319	Importance of Thermal Transport for the Design of Solid-State Battery Materials. **2022**, 1,	0
318	Double Hollow Zn2SnO4/SnO2@N-doped Carbon Nanocubes as Anode Material for High-performance Li-ion Batteries. **2022**, 140285	0
317	Characterization of the Solid Electrolyte Interphase at the Li Metal□onic Liquid Interface. 2202949	0
316	Self-Healing Polymers and Composites for Additive Manufacturing: Materials, Properties, and Applications. **2023**, 219-248	1
315	Molybdenum-Based Catalytic Materials for Li□ Batteries: Strategies, Mechanisms, and Prospects. 2200145	0

314	A review of new technology in the new energy automobile. **2022**,	0
313	Fluorinated Solid-State Electrolytes for Lithium Batteries: Interface Design and Ion Conduction Mechanisms.	0
312	Electrochemically Induced Defects Promotional High-Performance Binder-Free MnO@CC Cathodes for Flexible Quasi-Solid-State Zinc-Ion Battery. **2022**, 5, 15510-15519	2
311	First-Principles Investigation of Charged GermaGraphene as a Novel Cathode Material for Dual-Carbon Batteries.	0
310	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
309	Zincophilic Electrode Interphase with Appended Proton Reservoir Ability Stabilizes Zn Metal Anodes.	4
308	Processable Potassium□Carbon Nanotube Film with a Three-Dimensional Structure for Ultrastable Metallic Potassium Anodes. **2022**, 14, 55577-55586	1
307	Thiolate-Based Electrolytes with Anion-Dominated Solvation for Highly Stable Lithium Metal Batteries. **2022**, 126, 21181-21187	1
306	Tailoring lithium concentration in alloy anodes for long cycling and high areal capacity in sulfide-based all solid-state batteries. **2022**, 100087	1
305	Zincophilic Electrode Interphase with Appended Proton Reservoir Ability Stabilizes Zn Metal Anodes.	0
304	Expanding the cryogenic electron microscopy toolbox to reveal diverse classes of battery solid electrolyte interphase. **2022**, 25, 105689	0
303	Lithium Difluorophosphate: Boon for High Voltage Li Ion Batteries and a Bane for high Thermal Stability/low Toxicity: Towards Synergistic Dual-Additives to Circumvent this Dilemma.	0
302	Secondary Batteries for Mobile Applications: From Lead to Lithium [Historical]. **2022**, 16, 60-68	0
301	Modified cathode-electrolyte interphase toward high-performance batteries. **2022**, 3, 101197	0
300	Toluene Tolerated Li9.88GeP1.96Sb0.04S11.88Cl0.12 Solid Electrolyte toward Ultrathin Membranes for All-Solid-State Lithium Batteries.	1
299	Research Progresses of Liquid Electrolytes in Lithium-Ion Batteries. 2205315	1
298	Carbothermic reduction of LiCoO2 cathode material: Thermodynamic analysis, microstructure and mechanisms. **2022**, 34, e00526	0
297	A Comparative Study on the Corrosion Behavior of 316L and 304 Stainless Steels in a Simulated Alkaline Environment for Lithium Extraction. ArticleID:2212111	0

296	Study the application of nitrogenated holey graphene (C2N) nanosheets as a high-performance anode material for magnesium ion battery (MIB): DFT study. **2022**, 110296	0
295	Removing the Two-Phase Transition in Spinel LiMn2O4 through Cation Disorder. 314-319	0
294	Challenges and Developments of High Energy Density Anode Materials in Sulfide-Based Solid-State Batteries. **2022**, 9,	0
293	Mechanism, quantitative characterization, and inhibition of corrosion in lithium batteries. **2022**,	2
292	Ultra-Thin Layer Inside Separator Deposited by Spray Pyrolysis Using Methylaluminoxane Solution. 2200203	0
291	Defect Chemistry in Zn3V4(PO4)6. **2023**, 9, 5	0
290	Soccerene-like Li4Ti5O12/C as anode fast-charging Li-ion batteries. **2022**, 117101	0
289	Optimization for ultrahigh specific capacity and superior temperature control in a Li-ion battery cell. **2023**, 98, 015710	0
288	Lithium Intercalation in Covalent Organic Frameworks: A Porous Electrode Material for Lithium-Ion Batteries. **2022**, 4, 6237-6252	0
287	Enhanced Performance of Lithium Polymer Batteries Based on the Nickel-Rich LiNi0.8Mn0.1Co0.1O2 Cathode Material and Dual Salts. **2022**, 5, 15768-15779	0
286	A self-healing and nonflammable cross-linked network polymer electrolyte with the combination of hydrogen bonds and dynamic disulfide bonds for lithium metal batteries.	0
285	Relationship between Ion Transport and Phase Behavior in Acetal-Based Polymer Blend Electrolytes Studied by Electrochemical Characterization and Neutron Scattering. **2022**, 55, 11023-11033	0
284	Water Kefir GrainsMicrobial Biomass Source for Carbonaceous Materials Used as Sulfur-Host Cathode in Li-S Batteries. **2022**, 15, 8856	0
283	Chitosan modulated engineer tin dioxide nanoparticles well dispersed by reduced graphene oxide for high and stable lithium-ion storage. **2022**,	0
282	Amino-Acid-Substituted Perylene Diimide as the Organic Cathode Materials for Lithium-Ion Batteries. **2023**, 16, 839	0
281	Insight into the Structural, Mechanical and Optoelectronic Properties of Ternary Cubic Barium-Based BaMCl3 (M = Ag, Cu) Chloroperovskites Compounds. **2023**, 13, 140	1
280	Synthesis, Structure and Electrochemical Properties of a New Cation Ordered Layered Li-Ni-Mg-Mo Oxide.	0
279	A Thermodynamic Cycle-Based Electrochemical Windows Database of 308 Electrolyte Solvents for Rechargeable Batteries. 2212342	1

278	Solvothermal synthesis-driven quaternary Ni-rich cathode for stability-improved Li-ion batteries. **2023**, 146, 107426	0
277	Enhancing low electronic conductivity materials in all active material electrodes through multicomponent architecture.	0
276	Towards commercialization of fluorinated cation-disordered rock-salt Li-ion cathodes. 11,	0
275	High proportion of active nitrogen doped hard carbon based on Mannich reaction as anode material for high performance sodium ion batteries.	0
274	Reversible Iron Oxyfluoride (FeOF)-Graphene Composites as Sustainable Cathodes for High Energy Density Lithium Batteries. 2206947	0
273	A Comparison of Carbonate-Based and Ether-Based Electrolyte Systems for Lithium Metal Batteries.	0
272	Screening chloride li-ion conductors using high-throughput force field molecular dynamics.	0
271	UV-cured Polymer Solid Electrolyte Reinforced using a Ceramic-Polymer Composite Layer for Stable Solid-State Li Metal Batteries.	0
270	On the Road to the Frontiers of Lithium-ion Batteries: A Review and Outlook of Graphene Anodes. 2210734	0
269	Reduced graphene oxide-wrapped copper cobalt selenide composites as anode materials for high-performance lithium-ion batteries. **2023**, 130979	0
268	Stabilizing a Li$_2$MnO$_3$ Cathode by Blocking Lattice O Migration through a Nanoscale Phase Complex. 901-908	0
267	Polymer dispersed ionic liquid electrolytes with high ionic conductivity for ultrastable solid-state lithium batteries.	0
266	Solvent-Free Processed Cathode Slurry with Carbon Nanotube Conductors for Li-Ion Batteries. **2023**, 13, 324	0
265	Supramolecular Engineering of Cathode Materials for Aqueous Zinc-ion Hybrid Supercapacitors: Novel Thiophene-bridged Donor-Acceptor sp2 Carbon-linked Polymers.	0
264	Applications of In Situ Raman Spectroscopy on Rechargeable Batteries and Hydrogen Energy Systems.	0
263	Investigation and Optimization of Fast Cold Start of 18650 Lithium-Ion Cell by Heating Film-Based Heating Method. **2023**, 16, 750	0
262	Selecting the Optimal Fluorinated Ether Co-Solvent for Lithium Metal Batteries. **2023**, 15, 2804-2811	0
261	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

260	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
259	Analytical modeling of a multilayer, multimorph lithium-ion battery actuator. 1045389X2211365	0
258	Basics of Scanning Electrochemical Microscope and its Application in Characterizations of Lithium-Ion Batteries: A Brief Review.	0
257	Enabling interfacial stability of LiCoO2 batteries at ultrahigh cutoff voltage 4.65 V with synergetic electrolyte strategy.	0
256	Passivating Lithiated Graphite via Targeted Repair of SEI to Inhibit Exothermic Reactions in Early Stage of Thermal Runaway.	0
255	Dendritic sulfonated polyethersulfone nanofiber membrane@LaCoO3 nanowire-based composite solid electrolytes with facilitated ion transport channels for high-performance all-solid-state lithium metal batteries.	0
254	High-Voltage Deprotonation of Layered-Type Materials as Newly Identified Cause of Electrode Degradation.	1
253	Passivating Lithiated Graphite via Targeted Repair of SEI to Inhibit Exothermic Reactions in Early Stage of Thermal Runaway.	0
252	In-operando GC-MS: a new tool for the understanding of degradation processes occurring in electrochemical capacitors. **2023**,	0
251	Effective SEI Formation via Phosphazene-Based Electrolyte Additives for Stabilizing Silicon-Based Lithium-Ion Batteries. 2203503	0
250	Dual-functional vinylpyrrolidone electrolyte additive as anode surface leveler and cathode catalyst for lithium Metal-Oxygen batteries. **2023**, 458, 141383	0
249	Recovery and regeneration of anode graphite from spent lithium-ion batteries through deep eutectic solvent treatment: Structural characteristics, electrochemical performance and regeneration mechanism. **2023**, 457, 141196	0
248	Monolayer of B3O3 as a promising material in anode of magnesium-ion batteries: A theoretical study. **2023**, 1220, 114008	0
247	Li2Se as cathode additive to prolong the next generation high energy lithium-ion batteries. **2023**, 36, 102610	0
246	Mn2+ doped BaSnF4-based solid state electrolyte for room-temperature fluoride ion batteries. **2023**, 930, 117145	0
245	Future potential for lithium-sulfur batteries. **2023**, 558, 232566	0
244	A novel composite polymer electrolyte containing the lithium-ion conductor Li3Zr2Si2PO12 synthesized by cationic-exchange method for solid lithium metal batteries. **2023**, 441, 141795	0
243	Interfaces and interphases in batteries. **2023**, 559, 232652	1

242	Insights on the degradation mechanism for large format prismatic graphite/LiFePO4 battery cycled under elevated temperature. **2023**, 60, 106624	0
241	Zincophilic polyurethane-based porous film enables dendrite-free zinc anode for reversible aqueous zinc-based batteries. **2023**, 661, 130960	1
240	Aging diagnosis-oriented three-scale impedance model of lithium-ion battery inspired by and reflecting morphological evolution. **2023**, 59, 106357	1
239	Carbon-coated LiTi2(PO4)3 composites synthesized through tannic acid with high rate performance for aqueous lithium-ion batteries. **2023**, 939, 168704	0
238	N-doped carbon coated Ga2O3 nanotubes as anode materials for Li-ion battery to achieve superior performance. **2023**, 940, 168869	0
237	Atomic-level understanding on progressive lithiation of few-layer MoS2 with surface vacancies. **2023**, 939, 168663	0
236	Influence of incorporation of Fe2O3 content on the structural and the dielectric relaxation properties of lithium boro-vanadate oxide glass: toward ideal cathode glasses. **2023**, 129,	0
235	Spatially Offset Raman Spectroscopy for Characterization of a Solid-State System. **2023**, 9, 20	0
234	Ionic Liquid-Modified Silicon Nanoparticles Composite Gel Polymer Electrolyte for High-Performance Lithium Batteries.	0
233	Solvent Molecule Design Enables Excellent Charge Transfer Kinetics for a Magnesium Metal Anode. **2023**, 8, 780-789	0
232	Toward High-Performance Mg-S Batteries via a Copper Phosphide Modified Separator.	1
231	Low-Cost Zinc–Alginate-Based Hydrogel–Polymer Electrolytes for Dendrite-Free Zinc-Ion Batteries with High Performances and Prolonged Lifetimes. **2023**, 15, 212	0
230	Lithium-Ion Battery Development with High Energy Density. 27, 806-813	0
229	Janus Dione-Based Conjugated Covalent Organic Frameworks with High Conductivity as Superior Cathode Materials. **2023**, 145, 1022-1030	0
228	A Nitro-Rich Small-Molecule-Based Organic Cathode Material for Effective Rechargeable Lithium Batteries. **2023**, 15, 1227-1233	0
227	Templated Synthesis of SiO2 Nanotubes for Lithium-Ion Battery Applications: An In Situ (Scanning) Transmission Electron Microscopy Study. **2023**, 8, 925-933	0
226	Flexible Sn-Based Composite Anode with High Cycle Stability for Micro Lithium-Ion Batteries. **2022**,	0
225	A nano fiber–gel composite electrolyte with high Li+ transference number for application in quasi-solid batteries. **2022**, 100090	1

224	Double Paddle-Wheel Enhanced Sodium Ion Conduction in an Antiperovskite Solid Electrolyte. 2203284	0
223	One-Step Engineering Carbon Supported Magnetite Nanoparticles Composite in a Submicron Pomegranate Configuration for Superior Lithium-Ion Storage. **2023**, 16, 313	0
222	In Situ Solidified Gel Polymer Electrolytes for Stable Solid-State Lithium Batteries at High Temperatures. **2023**, 9, 28	1
221	Lithium Metal: The Key to Green Transportation. **2023**, 13, 405	1
220	Laser-Assisted Surface Lithium Fluoride Decoration of a Cobalt-Free High-Voltage Spinel LiNi0.5Mn1.5O4 Cathode for Long-Life Lithium-Ion Batteries. **2023**, 15, 1247-1255	2
219	Challenges of lithium dendrite formation in solid-state batteries. **2023**, 95-127	0
218	Rational Design of Electrode Materials for Advanced Supercapacitors: From Lab Research to Commercialization. 2213095	0
217	Self-Standing 3D Hollow Nanoporous SnO 2 -Modified Cu x O Nanotubes with Nanolamellar Metallic Cu Inwalls: A Facile In Situ Synthesis Protocol toward Enhanced Li Storage Properties. 2212654	0
216	Designing Highly Conductive Sodium-Based Metal Hydride Nanocomposites: Interplay between Hydride and Oxide Properties. 2209122	0
215	Tremella-like Vanadium Tetrasulfide as a High-Performance Cathode Material for Rechargeable Aluminum Batteries. **2023**, 15, 6888-6901	0
214	Viable defect engineering with templates into metal oxides. **2023**, 355-385	0
213	Redox-Active, Sulfur-Containing Polymers. **2023**, 203-254	0
212	Facile synthesis of porous LiMn2O4 nano-cubes for ultra-stable lithium-ion battery cathodes.	0
211	Fluorine-regulated cathode electrolyte interphase enables high-energy quasi-solid-state lithium metal batteries. **2023**, 122, 043903	0
210	Improving the electrochemical performance of LiNi0.5Mn1.5O4 cathode material by a coating of manganese phosphate.	0
209	Enhancing Performance of LiFePO4 Battery by Using a Novel Gel Composite Polymer Electrolyte. **2023**, 9, 51	0
208	Surfactant-Mediated Synthesis of Novel Mesoporous Hollow CuO Nanotubes as an Anode Material for Lithium-Ion Battery Application. **2023**, 8,	0
207	MOFs Containing Solid-State Electrolytes for Batteries. 2206887	0

206	Enabling All-Solid-State Li Metal Batteries Operated at 30 °C by Molecular Regulation of Polymer Electrolyte. 2203547	0
205	Solid-state batteries based on composite polymer electrolytes. **2023**, 47-80	0
204	On the disparity in reporting Li-rich layered oxide cathode materials.	0
203	Molybdenum Vanadium Oxides as Intercalation Hosts for Chloroaluminate Anions. **2023**, 9, 92	0
202	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
201	Double Conductor Coating to Improve the Structural Stability and Electrochemical Performance of LiNi0.8Co0.1Mn0.1O2 Cathode Material.	0
200	Efficient Regulation of Polysulfides by MoS 2 /MoO 3 Heterostructures for High-Performance Li-S Batteries. 2206083	0
199	Investigating the effect of pH on the growth of coprecipitated Ni0.8Co0.1Mn0.1(OH)2 agglomerates as precursors of cathode materials for Li-ion batteries. **2023**,	0
198	Inhibiting collective cation migration in Li-rich cathode materials as a strategy to mitigate voltage hysteresis.	0
197	Synthesis and applications of biomass-derived carbonaceous materials. **2023**, 559-578	0
196	Fast Li + Transport via Silica Network-Driven Nanochannels in Ionomer-in-Framework for Lithium Metal Batteries. 2210916	0
195	Sc2CX (X=N2, ON, O2) MXenes as a promising anode material: A first-principles study. **2023**, 133, 044301	0
194	Synthesis of Metal Organic Frameworks (MOFs) and Their Derived Materials for Energy Storage Applications. **2023**, 5, 140-166	0
193	Two-Dimensional VO2 Nanosheets with a Controllable Crystalline-Preferred Orientation for High-Performance Zinc-Ion Batteries. **2023**, 9, 95	0
192	Cation co-intercalation in potassium copper(II) hexacyanoferrates.	0
191	Hollow-Particles Quasi-Solid-State Electrolytes with Biomimetic Ion Channels for High-Performance Lithium-Metal Batteries. 2206655	1
190	Recent advances in 3D printed electrode materials for electrochemical energy storage devices. **2023**,	0
189	Probing depth-dependent inhomogeneous lithium concentration in thick LiNi0.88Co0.09Al0.03O2 cathodes for lithium-ion batteries. **2023**, 943, 169029	0

188	Framework structured Ce2(C2O4)3·10H2O as a pseudocapacitive electrode of a hybrid (asymmetric) supercapacitor (HSC) for large scale energy storage applications.	0
187	Effect of morphological variation in three-dimensional multiwall carbon nanotubes as the host cathode material for high-performance rechargeable lithium–sulfur batteries. **2023**, 13, 9402-9412	0
186	Recent advances in modified commercial separators for lithium–sulfur batteries. **2023**, 11, 7833-7866	0
185	Emerging Electrode Materials for Li-Ion Capacitor. **2023**, 147-177	0
184	Exploring the structural properties of cathode and anode materials in Li-ion battery via neutron diffraction technique. **2023**, 100032	0
183	Energy Storage Mechanism of C12-3-3 with High-Capacity and High-Rate Performance for Li/Mg Batteries.	0
182	Mitigating Swelling of the Solid Electrolyte Interphase using an Inorganic Anion Switch for Low-temperature Lithium-ion Batteries. **2023**, 135,	0
181	Battery thermal management system for the cooling of Li-Ion batteries, used in electric vehicles. **2023**,	0
180	Recent Advancement and Structural Engineering in Transition Metal Dichalcogenides for Alkali Metal Ions Batteries. **2023**, 16, 2559	0
179	Flexible photo-charging power sources for wearable electronics. **2023**, 33, 101276	0
178	Li2Se as a Cathode Prelithiation Additive for Lithium-Ion Batteries.	0
177	Enhanced zinc ion storage performance of V2O5·nH2O prepared by hydrothermal method with the assistance of sodium dodecylbenzene sulfonate. **2023**, 131459	0
176	Hybrid films constructed by carbon nanotubes and carbon nanocoils as current collectors for lithium-ion batteries. **2023**, 935, 117288	0
175	Inkjet-Printed Graphene-Modified Aluminum Current Collector for High-Voltage Lithium-Ion Battery.	0
174	Tuning Bulk Redox and Altering Interfacial Reactivity in Highly Fluorinated Cation-Disordered Rocksalt Cathodes.	0
173	Sulfur-grafted hard carbon with expanded interlayer spacing and increased defects for high stability potassium-ion batteries. **2023**, 393, 116172	0
172	Identification of Potential Electrolyte Additives via Density Functional Theory Analysis. **2023**, 8,	0
171	High stability of solid electrolyte interphase in lithium metal batteries enabled by direct fluorination on metal iron powder. **2023**, 121, 445-451	0

170	Toward high-sulfur-content, high-performance lithium-sulfur batteries: Review of materials and technologies. **2023**, 80, 625-657	1
169	Governing failure mechanisms of simplified three-way dendritic branch under compressive load. **2023**, 180, 104620	0
168	Design strategies for coordination polymers as electrodes and electrolytes in rechargeable lithium batteries. **2023**, 483, 215084	0
167	Al2O3/ZnO composite-based sensors for battery safety applications: An experimental and theoretical investigation. **2023**, 109, 108301	0
166	Highly conductive polyacrylonitrile-based hybrid aqueous/ionic liquid solid polymer electrolytes with tunable passivation for Li-ion batteries. **2023**, 453, 142349	0
165	Enhanced lithium storage capability of Ni-rich LiNi0.9CoxMn0.1□O2(0□x□0.1) cathode by co-operation of Al-doping and V-coating. **2023**, 946, 169428	0
164	Enhanced Na+ diffusion in Na3V2(PO4)2F2O cathodes via Zr4+ doping for high-rate and long-cycling sodium batteries. **2023**, 945, 169314	0
163	Suppressing storage-induced degradation of Li7La3Zr2O12 via encapsulation with hydrophobicity-tailored polymer nanolayer. **2023**, 453, 142358	0
162	An efficient method for separation of Ni(II) and Co(II) with novel extractant NNPA: Synthesis, characterization, extraction behaviors, crystal structures and DFT computational studies. **2023**, 11, 109815	0
161	Nano sulfurized polyacrylonitrile cathode for high performance solid-state lithium–sulfur batteries. **2023**, 570, 233045	0
160	Potential use of silicon carbide monolayer as an anode in rechargeable Mg-ion batteries. **2023**, 177, 111270	0
159	UV-photopolymerized cellulose acetate-acrylate membranes for lithium-ion battery separator. **2023**, 667, 131359	0
158	Solid-state approach for synthesizing single crystal LiNi0.8Co0.1Mn0.1O2 cathode of lithium-ion batteries. **2023**, 946, 169358	0
157	Fundamentals, recent developments and prospects of lithium and non-lithium electrochemical rechargeable battery systems. **2023**, 81, 221-259	0
156	Progressive activation of porous vanadium nitride microspheres with intercalation-conversion reactions toward high performance over a wide temperature range for zinc-ion batteries. **2023**, 640, 487-497	0
155	Revealing structural degradation in layered structure oxides cathode of lithium ion batteries via in-situ transmission electron microscopy. **2023**, 154, 189-201	0
154	Deciphering the critical effect of cathode-electrolyte interphase by revealing its dynamic evolution. **2023**, 81, 192-199	0
153	Reciprocal irreversibility compensation of LiNi0.2Co0.2Al0.1Mn0.45O2 cathode and silicon oxide anode in new Li-ion battery. **2023**, 452, 142263	0

152	Multifunctional polymer electrolyte membrane networks for energy storage via ion-dipole complexation in lithium metal battery. **2023**, 64, 107138	0
151	A new fluorine-containing sulfone-based electrolyte for advanced performance lithium metal batteries. **2023**, 64, 107137	0
150	A review of early warning methods of thermal runaway of lithium ion batteries. **2023**, 64, 107073	0
149	Enabling high nickel LiNi0.9Co0.1O2 cathode with enhanced cycling performance at high temperature by a phospholipid-like protective layer. **2023**, 953, 170032	0
148	Facile synthesis of copper cobalt sulfide and nickel hydroxide tube-like composites as battery-type active material of energy storage devices. **2023**, 65, 107330	0
147	Congener-derived template to construct lithiophilic organic-inorganic layer/interphase for high volumetric capacity dendrite-free Li metal batteries. **2023**, 108451	0
146	First-principles study of penta-graphene/MoS2 vdW heterostructure as anode material for lithium-ion batteries. **2023**, 109928	0
145	Recyclable 3D-Printed Aqueous Lithium-Ion Battery.	0
144	Molecular Design of Asymmetric Cyclophosphamide as Electrolyte Additive for High-Voltage Lithium-Ion Batteries. 2241-2251	0
143	Ag nanoparticles incorporated interlayer enables ultrahigh critical current density for Li6PS5Cl-based all-solid-state lithium batteries. **2023**, 563, 232836	1
142	The Importance of Structural Uniformity and Chemical Homogeneity in Cobalt-Free Lithium Excess Nickel Manganese Oxide Cathodes.	0
141	Microfluidic-oriented assembly of Mn3O4@C/GFF cathode with multiscale synergistic structure for high-performance aqueous zinc-ion batteries. **2023**, 208, 247-254	0
140	A bibliometric analysis of lithium-ion batteries in electric vehicles. **2023**, 63, 107109	0
139	Dendrite-free Li-metal anode via a dual-function protective interphase layer for stable Li-metal pouch cell. **2023**, 36, e00585	0
138	Effect of dual improved electronic and cationic conductivity via W doping on cyclability and rate performance of LiNi0.90Co0.04Mn0.03Al0.03O2 cathode for rechargeable LiBs. **2023**, 63, 107088	0
137	Offline order recognition for state estimation of Lithium-ion battery using fractional order model. **2023**, 341, 120977	0
136	Aging of lithium-ion battery separators during battery cycling. **2023**, 63, 107107	0
135	Interface problems, modification strategies and prospects of Ni□ich layered oxide cathode materials in all□olid□tate lithium batteries with sulfide electrolytes. **2023**, 571, 233079	0

134	Towards advanced lithium metal solid-state batteries: Durable and safe multilayer pouch cell enabled by a nanocomposite solid electrolyte. **2023**, 392, 116148	0
133	Nickel ion-anchored helical braided binder network with soft-rigid synergy and self-recovery ability for high-performance silicon anode. **2023**, 560, 232671	0
132	Atomistic mechanism of high ionic conductivity in lithium ytterbium-based halide solid electrolytes: A first-principles study. **2023**,	0
131	Photo-Initiated in situ synthesis of polypyrrole Fe-Coated porous silicon microspheres for High-performance Lithium-ion battery anodes. **2023**, 459, 141543	0
130	Oriented-Etched Graphite for Low-Temperature Lithium-Ion Batteries. **2023**, 6,	0
129	Recent achievements toward the development of Ni-based layered oxide cathodes for fast-charging Li-ion batteries. **2023**, 15, 4195-4218	0
128	Stability study of transition metal oxide electrode materials. **2023**, 560, 232710	0
127	Ab-initio investigation of the structural stability, electronic and optical properties of the LiBO2 compound by using the G0W0+BSE approach. **2023**, 34, e00789	0
126	Electrolytes for Batteries. **2022**, 1-24	0
125	Recent progress of theoretical research on inorganic solid state electrolytes for Li metal batteries. **2023**, 561, 232720	1
124	Honeycomb layered oxide as cathodic material for Li- and post-Li batteries: A self-consistent PBE□+□U study of metal ions (A = Li, Ca, Al) intercalation in bulk SrRu2O6. **2023**, 392, 116165	0
123	Hollow spherical LaFeO3 perovskite as anode material for Lithium-ion battery. **2023**, 150, 110458	0
122	Recent Research Process of Carbon Engineering on Na3V2(PO4)3 for Sodium-Ion Battery Cathodes: A Mini Review. **2023**, 4, 17-32	0
121	Near ambient N2 fixation on solid electrodes versus enzymes and homogeneous catalysts. **2023**, 7, 184-201	0
120	Direct observation of cation diffusion driven surface reconstruction at van der Waals gaps. **2023**, 14,	0
119	A 10-□m Ultrathin Lithium Metal Composite Anodes with Superior Electrochemical Kinetics and Cycling Stability.	0
118	Intercalation of bilayered V2O5 by electronically coupled PEDOT for greatly improved kinetic performance of magnesium ion battery cathodes. **2023**, 460, 141706	0
117	Self-adaptive Gel Poly(imide-siloxane) Binder Ensuring Stable Cathode-Electrolyte Interface for Achieving High-Performance NCM811 Cathode in Lithium-ion Batteries. **2023**, 56, 621-630	0

116	Inlaid layered double hydroxides and MXene composite electrodes with high rate performance as asymmetric supercapacitors. **2023**, 34,	0
115	Probing the Mysterious Behavior of Tungsten as a Dopant Inside Pristine Cobalt-Free Nickel-Rich Cathode Materials. **2023**, 33,	0
114	Modification of suitable electrolytes for high voltage lithium-rich manganese-based cathode with wide-temperature range.	0
113	Oxygen-vacancy-containing cerium oxide nanoparticle-decorated nanonetwork-structured carbon toward high-performance lithium–sulfur batteries. **2023**, 3, 137-144	0
112	Quantitative analysis of cyclic aging of lithium-ion batteries using synchrotron tomography and electrochemical impedance spectroscopy. **2023**, 444, 142003	0
111	Organosulfur Materials for Rechargeable Batteries: Structure, Mechanism, and Application. **2023**, 123, 1262-1326	0
110	Selective recovery of lithium from spent LiFePO4 battery via a self-catalytic air oxidation method. **2023**, 460, 141805	0
109	Spontaneous In Situ Formation of Lithium Metal Nitride in the Interface of Garnet-Type Solid-State Electrolyte by Tuning of Molten Lithium.	0
108	Interface engineering of Bi2S3/ZnS heterostructures embedded in N-doped carbon enable superior lithium storage performance. **2023**, 29, 101377	0
107	Imaging solid–electrolyte interphase dynamics using operando reflection interference microscopy.	0
106	Improved Parameter Identification for Lithium-Ion Batteries Based on Complex-Order Beetle Swarm Optimization Algorithm. **2023**, 14, 413	0
105	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
104	Specific countermeasures to intrinsic capacity decline issues and future direction of LiMn2O4 cathode. **2023**, 57, 577-606	0
103	Improving the electrochemical performance of Li1.2Ni0.13Co0.13Mn0.54O2 cathode material by In2O3 coating. **2023**, 29, 1323-1334	0
102	A high-safety, flame-retardant cellulose-based separator with encapsulation structure for lithium-ion battery.	0
101	Organic Hydronium-Ion Battery with Ultralong Life. **2023**, 8, 1390-1396	0
100	Automation in the Sector of Home Gardening (Domestic Smart Pot). **2022**,	0
99	Effect of acetic acid on NMC811 electrode made by freeze casting. **2023**, 98, 045812	0

98	Origin of performance degradation in high-delithiation LixCoO2: insights from direct atomic simulations using global neural network potentials. **2023**, 11, 5370-5379	1
97	Current Status and Future Perspective on Lithium Metal Anode Production Methods. **2023**, 13,	0
96	Uncovering the untapped potential of copper(I) sulphide toward lithium-ion storage under ultra-low temperatures. **2023**, 11, 6168-6180	0
95	Guest Ion-Dependent Reaction Mechanisms of New Pseudocapacitive Mg 3 V 4 (PO 4) 6 /Carbon Composite as Negative Electrode for Monovalent-Ion Batteries. **2023**, 10,	0
94	A review in rational design of graphene toward advanced Li–S batteries. **2023**, 1-16	0
93	The Role of Pulse Duty Cycle and Frequency on Dendritic Compression. **2023**, 127, 4407-4415	0
92	A cyclic organosulfide cathode with ultrastable cycling performance in lithium batteries. **2023**, 59, 3289-3292	0
91	Weak Solvent–Solvent Interaction Enables High Stability of Battery Electrolyte. **2023**, 8, 1477-1484	0
90	Poly(Ether-Ester)-Based Solid Polymer Electrolytes with High Li-Ion Transference Number for High Voltage All-Solid-State Lithium Metal Batteries. **2023**, 6, 3113-3125	0
89	Surface engineering of LiCoO2 by a multifunctional nanoshell for stable 4.6V electrochemical performance. **2023**, 57, 289-298	0
88	Holey Ti3C2 MXene-Derived Anode Enables Boosted Kinetics in Lithium-Ion Capacitors. **2023**, 15, 12161-12170	0
87	A jigsaw-structured artificial solid electrolyte interphase for high-voltage lithium metal batteries. **2023**, 4,	0
86	Synthesis, Crystal Structure, and Conductivity of a Weakly Coordinating Anion/Cation Salt for Electrolyte Application in Next-Generation Batteries.	0
85	Interfacial challenges and strategies towards practical sulfide-based solid-state lithium batteries.	0
84	Controllable assembly of nitrogen-doped mesoporous carbon with different pore structures onto CNTs for excellent lithium storage. **2023**, 16, 3879-3887	0
83	Understanding the effects of the electrochemical and thermal properties of the separator on the battery temperature. **2023**, 461, 142067	0
82	Stability of solid electrolyte interphases and calendar life of lithium metal batteries. **2023**, 16, 1548-1559	0
81	Iron-Vanadium Incorporated Ferrocyanides as Potential Cathode Materials for Application in Sodium-Ion Batteries. **2023**, 14, 521	0

80	Transition metal chalcogenides for next-generation energy storage.	0
79	Mitigating Swelling of the Solid Electrolyte Interphase using an Inorganic Anion Switch for Low-temperature Lithium-ion Batteries. **2023**, 62,	0
78	Zn□doping induced the enhancement of electrochemical performance for CoTiO3 anode material. **2023**, 29, 1407-1418	0
77	Recent Progress on Honeycomb Layered Oxides as a Durable Cathode Material for Sodium-Ion Batteries. 2201555	0
76	Microstructure analysis of Si/graphite composite anode during charge-discharge cycle for lithium-ion battery with tetraglyme- and sulfolane-based less volatile electrolyte. **2023**, 447, 142115	0
75	Research progress and perspectives on ultra-low temperature organic batteries. **2023**, 11, 7898-7923	0
74	A Li3PO4 coating strategy to enhance the Li-ion transport properties of Li2ZnTi3O8 anode material for Lithium-ion Battery. **2023**, 447, 142151	1
73	A polysulfide-functionalized separator enables robust long-cycle operation of lithium-metal batteries.	0
72	Construction of Localized High-Concentration PF 6 □Region for Suppressing NCM622 Cathode Failure at High Voltage. 2201693	0
71	Fabrication of a porous polymer electrolyte from poly(vinylidene fluoride-hexafluoropropylene) via one-step reactive vapor-induced phase separation for lithium-ion battery. **2023**, 58, 4865-4881	0
70	Carbon materials for metal-ion batteries. **2023**,	0
69	Interfacial oxygen coordination environment regulation towards high-performance Li-rich layered oxide cathode. **2023**, 462, 142194	0
68	Development and challenges of deep eutectic solvents for cathode recycling of end-of-life lithium-ion batteries. **2023**, 463, 142278	0
67	Reversible, Dendrite-Free, High-Capacity Aluminum Metal Anode Enabled by Aluminophilic Interface Layer. **2023**, 23, 2295-2303	0
66	An In Situ Prepared Comb-like Polycaprolactone-Based Gel Electrolyte for High-Performance Lithium Metal Batteries. **2023**, 16, 2117	0
65	Exploring the Ultrafast Charge-Transfer and Redox Dynamics in Layered Transition Metal Oxides. **2023**, 8, 25	0
64	Comparative studies of hexagonal boron phosphide/V2CS2 heterostructure and homogeneous bilayers as metal-ion battery anodes. **2023**, 25, 10011-10021	0
63	Cooperative Proton and Li-ion Conduction in a 2D-Layered MOF via Mechanical Insertion of Lithium Halides.	0

62	Nanoscale control and tri-element co-doping of 4.6 V LiCoO2 with excellent rate capability and long-cycling stability for lithium-ion batteries. **2023**, 52, 3981-3989	0
61	Transferring state of health estimation neural networks for different battery chemistries and charging protocols using renormalization and transfer learning. **2023**, 1, 100013	0
60	Cooperative Proton and Li-ion Conduction in a 2D-Layered MOF via Mechanical Insertion of Lithium Halides.	0
59	Polyanions SnWO4 nanowires using as the lithium-ion battery anode. **2023**,	0
58	Theoretical study of the properties of Nb-doped Li3YbCl6 solid-state electrolytes. **2023**,	0
57	Identification and Fast Measurement Method of Open-circuit Voltage. **2023**, 170, 030525	0
56	Naked metallic skin for homo-epitaxial deposition in lithium metal batteries. **2023**, 14,	0
55	An insight into lithium-ion transport in germanium-doped lithium titanate anode through NMR spectroscopy and post-carbonization for anode applications in lithium-ion battery. **2023**, 122, 103904	0
54	Promoting polysulfide conversions via cobalt single-atom catalyst for fast and durable lithium-sulfur batteries.	0
53	Design of an Online Electrochemical Mass Spectrometry System to Study Gas Evolution from Cells with Lean and Volatile Electrolytes. 2201438	0
52	Stable LiF-Rich Electrode–Electrolyte Interface toward High-Voltage and High-Energy-Density Lithium Metal Solid Batteries. 2300494	0
51	Fluoride-Based Stable Quasi-Solid-State Zinc Metal Battery with Superior Rate Capability. **2023**, 15, 15574-15584	84
50	Tuning coordination environment of iron ions to ensure ultra-high pseudocapacitive capability in iron oxide.	0
49	Multifunctional Electrochromic Devices for Energy Applications. **2023**, 8, 1870-1886	0
48	Bimetallic selenide Cu4Mo6Se8 nanosheet arrays grown on a carbon skeleton via MOF-derived with enhanced electrochemical kinetics for high-performance sodium-ion batteries.	0
47	Facing the capacity fading of vanadium-based zinc-ion batteries. **2023**,	0
46	Traditional Electrode Materials for Supercapacitor Applications. **2023**, 19-64	0
45	A pre-strain strategy of current collectors for suppressing electrode debonding in lithium-ion batteries. **2023**, 44, 547-560	0

44	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
43	Surface Lattice Modulation through Chemical Delithiation toward a Stable Nickel-Rich Layered Oxide Cathode. **2023**, 145, 7397-7407	0
42	Two-Dimensional Mesoporous Materials for Energy Storage and Conversion: Current Status, Chemical Synthesis and Challenging Perspectives. **2023**, 6,	0
41	Constructing a conductive and buffer network on microscale silicon-based anodes for high-performance lithium-ion batteries. **2023**, 949, 169846	0
40	Zwitterionic poly(ionic liquids)-based polymer electrolytes for Lithium-ion batteries applications.	0
39	Ultrastable Cu2+ Intercalation Chemistry Based on a Niobium Sulfide Nanosheet Cathode for Advanced Aqueous Storage Devices. **2023**, 17, 6497-6506	0
38	Tuning Fluorination of Carbonates for Lithium-Ion Batteries: A Theoretical Study. **2023**, 127, 3026-3040	0
37	Novel Synthesis of 3D Mesoporous FePO4 from Electroflocculation of Iron Filings as a Precursor of High-Performance LiFePO4/C Cathode for Lithium-Ion Batteries. **2023**, 8, 12707-12715	0
36	Repurposing Ni and Co from Alloy Scraps for the Synthesis of LiNi0.6Co0.2Mn0.2O2 Cathodes. **2023**, 11, 5420-5427	0
35	Activating the paddle-wheel effect towards lower temperature in a new sodium-ion solid electrolyte, Na3.5Si0.5P0.5Se4.	0
34	In Situ Polymerization Anchoring Effect Enhancing the Structural Stability and Electrochemical Performance of the LiNi0.8Co0.1Mn0.1O2 Cathode Material. **2023**, 15, 19075-19084	0
33	Localized high-concentration electrolytes for lithium metal batteries: progress and prospect.	0
32	Voltage Hysteresis in Transition Metal Oxide Cathodes for Li/Na-Ion Batteries.	0
31	Emerging electrolytes with fluorinated solvents for rechargeable lithium-based batteries.	0
30	Lithium-Mediated Mechanochemical Cyclodehydrogenation. **2023**, 145, 8163-8175	0
29	Improving the Electrochemical Performance of LiNi1/3Co1/3Mn1/3O2 Cathode Material by LiF Modification. **2023**, 13, 727	0
28	Advanced separator engineering strategies for reversible electrochemical zinc storage.	0
27	Novel Lamellar Se4P4/Graphene Hybrid Anode Stimulated Durable Potassium Storage. **2023**, 37, 6177-6185	0

26	Insight into the effects of S-vacancy and O-doping in monolayer VS2 as lithium-ion battery anodes from first-principles calculations. **2023**, 38, 102851	0
25	Engineering Peculiar Cathode Electrolyte Interphase toward Sustainable and High-Rate Li Batteries.	0
24	Recent Progress in and Perspectives on Emerging Halide Superionic Conductors for All-Solid-State Batteries. **2023**, 6,	0
23	A Review of Cobalt-Based Metal Hydroxide Electrode for Applications in Supercapacitors. **2023**, 2023, 1-15	0
22	Construction of cobalt sulfide/molybdenum disulfide heterostructure as the anode material for sodium ion batteries. **2023**, 6,	0
21	Cobalt-Free Layered LiNi0.8Mn0.15Al0.05O2/Graphene Aerogel Composite Electrode for Next-Generation Li-Ion Batteries.	0
20	Superb High-Voltage Performance of LiCoO2 with Structure and Surface Highly Stabilized by Co-Doping Trace Mg and F during One-Pot Solid-State Synthesis. **2023**, 101313	0
19	Indispensable Assets for Rechargeable World. **2023**, 28, 577-596	0
18	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
17	Boosting the Na-Ion Conductivity in the Cluster-Ion Based Anti-Perovskite Na 2 BH 4 NH 2.	0
16	Mitigating Twin Boundary-Induced Cracking for Enhanced Cycling Stability of Layered Cathodes.	0
15	In-situ formed hybrid phosphates coating layer enabling Co-free Li-rich layered oxides with stable cycle performance. **2023**, 101314	0
14	Self-Assembly Monolayer Inspired Stable Artificial Solid Electrolyte Interphase Design for Next-Generation Lithium Metal Batteries.	0
13	Critical review on the degradation mechanisms ?and recent progress of Ni-rich layered oxide cathodes for lithium-ion batteries. **2023**, 100103	0
12	Insights into the Structural and Thermodynamic Instability of Ni-Rich NMC Cathode.	0
11	Total Component Recovery of Spent LiFePO4 Cathode Powder: A Leaching-Adsorption Process.	0
10	Population effects driving active material degradation in intercalation electrodes. **2023**, 107,	0
9	Electrolyte-Wettability Issues and Challenges of Electrode Materials in Electrochemical Energy Storage, Energy Conversion, and Beyond.	0

8	Novel Nanoarchitecture of 3D ion Transfer Channel Containing Nanocomposite Solid Polymer Electrolyte Membrane Based on Holey Graphene Oxide and Chitosan Biopolymer. **2023**, 143159	0
7	The Relevance of Lithium Salt Solvate Crystals in Superconcentrated Electrolytes in Lithium Batteries. **2023**, 16, 3700	0
6	Polylatic Acid Nanofiber-Guided Uniform Lithium Deposition for Stable Lithium Metal Anodes. **2023**, 170, 050517	0
5	Structure and Interface Engineering of Ultrahigh-Rate 3D Bismuth Anodes for Sodium-Ion Batteries.	0
4	Geometry-influenced cooling performance of lithium-ion battery. **2023**, 230, 120723	0
3	Application of T4,4,4-graphyne for anode of Na-ion battery: first principle theoretical study. 1-7	0
2	Polar Perturbations in Functional Oxide Heterostructures.	0
1	Mechanisms of adsorption and diffusion of Na on a VSe2 monolayer with engineering-induced vacancies.	0