Kang Xu

List of Publications by Citations

263 papers	35,890 citations	95 h-index	187 g-index
279 ext. papers	43,888 ext. citations	14 avg, IF	8.21 L-index

#	Paper	IF	Citations
263	Nonaqueous liquid electrolytes for lithium-based rechargeable batteries. *Chemical Reviews*, **2004**, 104, 4303-417	68.1	4670
262	Electrolytes and interphases in Li-ion batteries and beyond. *Chemical Reviews*, **2014**, 114, 11503-618	68.1	2847
261	"Water-in-salt" electrolyte enables high-voltage aqueous lithium-ion chemistries. *Science*, **2015**, 350, 938-43	33.3	1717
260	Highly reversible zinc metal anode for aqueous batteries. *Nature Materials*, **2018**, 17, 543-549	27	1128
259	Before Li Ion Batteries. *Chemical Reviews*, **2018**, 118, 11433-11456	68.1	956
258	Electrochemical impedance study on the low temperature of Li-ion batteries. *Electrochimica Acta*, **2004**, 49, 1057-1061	6.7	618
257	Non-flammable electrolyte enables Li-metal batteries with aggressive cathode chemistries. *Nature Nanotechnology*, **2018**, 13, 715-722	28.7	606
256	Electrospun Sb/C fibers for a stable and fast sodium-ion battery anode. *ACS Nano*, **2013**, 7, 6378-86	16.7	557
255	Quantifying inactive lithium in lithium metal batteries. *Nature*, **2019**, 572, 511-515	50.4	467
254	EIS study on the formation of solid electrolyte interface in Li-ion battery. *Electrochimica Acta*, **2006**, 51, 1636-1640	6.7	440
253	Highly Fluorinated Interphases Enable High-Voltage Li-Metal Batteries. *CheM*, **2018**, 4, 174-185	16.2	435
252	Advanced High-Voltage Aqueous Lithium-Ion Battery Enabled by "Water-in-Bisalt" Electrolyte. *Angewandte Chemie - International Edition*, **2016**, 55, 7136-41	16.4	435
251	Aqueous Li-ion battery enabled by halogen conversion-intercalation chemistry in graphite. *Nature*, **2019**, 569, 245-250	50.4	378
250	The low temperature performance of Li-ion batteries. *Journal of Power Sources*, **2003**, 115, 137-140	8.9	377
249	Localized High-Concentration Sulfone Electrolytes for High-Efficiency Lithium-Metal Batteries. *CheM*, **2018**, 4, 1877-1892	16.2	348
248	"Water-in-Salt" Electrolyte Makes Aqueous Sodium-Ion Battery Safe, Green, and Long-Lasting. *Advanced Energy Materials*, **2017**, 7, 1701189	21.8	335
247	4.0 V Aqueous Li-Ion Batteries. *Joule*, **2017**, 1, 122-132	27.8	324

246	LiBOB as Salt for Lithium-Ion Batteries:A Possible Solution for High Temperature Operation. *Electrochemical and Solid-State Letters*, **2002**, 5, A26		306
245	Interfacing electrolytes with electrodes in Li ion batteries. *Journal of Materials Chemistry*, **2011**, 21, 9849		294
244	Differentiating contributions to "ion transfer" barrier from interphasial resistance and Li+ desolvation at electrolyte/graphite interface. *Langmuir*, **2010**, 26, 11538-43	4	289
243	Understanding Solid Electrolyte Interface Film Formation on Graphite Electrodes. *Electrochemical and Solid-State Letters*, **2001**, 4, A206		285
242	Dendrite-free lithium deposition with self-aligned nanorod structure. *Nano Letters*, **2014**, 14, 6889-96	11.5	276
241	New Concepts in Electrolytes. *Chemical Reviews*, **2020**, 120, 6783-6819	68.1	267
240	Tin-coated viral nanoforests as sodium-ion battery anodes. *ACS Nano*, **2013**, 7, 3627-34	16.7	259
239	Realizing high zinc reversibility in rechargeable batteries. *Nature Energy*, **2020**, 5, 743-749	62.3	259
238	Dual-graphite chemistry enabled by a high voltage electrolyte. *Energy and Environmental Science*, **2014**, 7, 617-620	35.4	258
237	Solvation Sheath of Li+ in Nonaqueous Electrolytes and Its Implication of Graphite/Electrolyte Interface Chemistry. *Journal of Physical Chemistry C*, **2007**, 111, 7411-7421	3.8	247
236	An Attempt to Formulate Nonflammable Lithium Ion Electrolytes with Alkyl Phosphates and Phosphazenes. *Journal of the Electrochemical Society*, **2002**, 149, A622	3.9	242
235	In situ quantification of interphasial chemistry in Li-ion battery. *Nature Nanotechnology*, **2019**, 14, 50-56	28.7	235
234	Confined Sulfur in Microporous Carbon Renders Superior Cycling Stability in Li/S Batteries. *Advanced Functional Materials*, **2015**, 25, 4312-4320	15.6	232
233	How Solid-Electrolyte Interphase Forms in Aqueous Electrolytes. *Journal of the American Chemical Society*, **2017**, 139, 18670-18680	16.4	227
232	Toward Reliable Values of Electrochemical Stability Limits for Electrolytes. *Journal of the Electrochemical Society*, **1999**, 146, 4172-4178	3.9	224
231	Study of the charging process of a LiCoO2-based Li-ion battery. *Journal of Power Sources*, **2006**, 160, 1349-1354	8.9	214
230	An artificial interphase enables reversible magnesium chemistry in carbonate electrolytes. *Nature Chemistry*, **2018**, 10, 532-539	17.6	209
229	Understanding Li(+)-Solvent Interaction in Nonaqueous Carbonate Electrolytes with (17)O NMR. *Journal of Physical Chemistry Letters*, **2013**, 4, 1664-8	6.4	206

228	Electrolyte Additive in Support of 5 V Li Ion Chemistry. *Journal of the Electrochemical Society*, **2011**, 158, A337	3.9	197
227	Bisalt ether electrolytes: a pathway towards lithium metal batteries with Ni-rich cathodes. *Energy and Environmental Science*, **2019**, 12, 780-794	35.4	196
226	Lithium ethylene dicarbonate identified as the primary product of chemical and electrochemical reduction of EC in 1.2 M LiPF6/EC:EMC electrolyte. *Journal of Physical Chemistry B*, **2005**, 109, 17567-73	3.4	196
225	Hybrid Aqueous/Non-aqueous Electrolyte for Safe and High-Energy Li-Ion Batteries. *Joule*, **2018**, 2, 927-937	27.8	194
224	In situ and quantitative characterization of solid electrolyte interphases. *Nano Letters*, **2014**, 14, 1405-12	11.5	194
223	Liquid Structure with Nano-Heterogeneity Promotes Cationic Transport in Concentrated Electrolytes. *ACS Nano*, **2017**, 11, 10462-10471	16.7	193
222	Charge-Transfer Process at Graphite/Electrolyte Interface and the Solvation Sheath Structure of Li[sup +] in Nonaqueous Electrolytes. *Journal of the Electrochemical Society*, **2007**, 154, A162	3.9	188
221	Enhancing the reversibility of Mg/S battery chemistry through Li(+) mediation. *Journal of the American Chemical Society*, **2015**, 137, 12388-93	16.4	185
220	A rechargeable zinc-air battery based on zinc peroxide chemistry. *Science*, **2021**, 371, 46-51	33.3	185
219	A new approach toward improved low temperature performance of Li-ion battery. *Electrochemistry Communications*, **2002**, 4, 928-932	5.1	184
218	Reaction mechanisms for the limited reversibility of Li O2 chemistry in organic carbonate electrolytes. *Journal of Power Sources*, **2011**, 196, 9631-9639	8.9	183
217	Low temperature performance of graphite electrode in Li-ion cells. *Electrochimica Acta*, **2002**, 48, 241-246	6.7	183
216	A rechargeable aqueous Zn2+-battery with high power density and a long cycle-life. *Energy and Environmental Science*, **2018**, 11, 3168-3175	35.4	182
215	Identifying the components of the solid-electrolyte interphase in Li-ion batteries. *Nature Chemistry*, **2019**, 11, 789-796	17.6	181
214	Sulfone-Based Electrolytes for Lithium-Ion Batteries. *Journal of the Electrochemical Society*, **2002**, 149, A920	3.9	173
213	A carbonate-free, sulfone-based electrolyte for high-voltage Li-ion batteries. *Materials Today*, **2018**, 21, 341-353	21.8	171
212	High-Voltage Aqueous Magnesium Ion Batteries. *ACS Central Science*, **2017**, 3, 1121-1128	16.8	168
211	Nonflammable Electrolytes for Li-Ion Batteries Based on a Fluorinated Phosphate. *Journal of the Electrochemical Society*, **2002**, 149, A1079	3.9	164

210	Fluorinated hybrid solid-electrolyte-interphase for dendrite-free lithium deposition. *Nature Communications*, **2020**, 11, 93	17.4	164
209	Real-time mass spectrometric characterization of the solid-electrolyte interphase of a lithium-ion battery. *Nature Nanotechnology*, **2020**, 15, 224-230	28.7	156
208	Uncharted Waters: Super-Concentrated Electrolytes. *Joule*, **2020**, 4, 69-100	27.8	153
207	Lithium Bis(oxalato)borate Stabilizes Graphite Anode in Propylene Carbonate. *Electrochemical and Solid-State Letters*, **2002**, 5, A259		152
206	Modeling Insight into Battery Electrolyte Electrochemical Stability and Interfacial Structure. *Accounts of Chemical Research*, **2017**, 50, 2886-2894	24.3	150
205	Tris(2,2,2-trifluoroethyl) phosphite as a co-solvent for nonflammable electrolytes in Li-ion batteries. *Journal of Power Sources*, **2003**, 113, 166-172	8.9	150
204	Effect of Al2O3 Coating on Stabilizing LiNi0.4Mn0.4Co0.2O2 Cathodes. *Chemistry of Materials*, **2015**, 27, 6146-6154	9.6	149
203	Syntheses and characterization of lithium alkyl mono- and dicarbonates as components of surface films in Li-ion batteries. *Journal of Physical Chemistry B*, **2006**, 110, 7708-19	3.4	146
202	Deciphering the Ethylene Carbonate-Propylene Carbonate Mystery in Li-Ion Batteries. *Accounts of Chemical Research*, **2018**, 51, 282-289	24.3	145
201	Stabilizing high voltage LiCoO2 cathode in aqueous electrolyte with interphase-forming additive. *Energy and Environmental Science*, **2016**, 9, 3666-3673	35.4	140
200	Water-in-Salt electrolytes enable green and safe Li-ion batteries for large scale electric energy storage applications. *Journal of Materials Chemistry A*, **2016**, 4, 6639-6644	13	140
199	Evaluation of Fluorinated Alkyl Phosphates as Flame Retardants in Electrolytes for Li-Ion Batteries: I. Physical and Electrochemical Properties. *Journal of the Electrochemical Society*, **2003**, 150, A161	3.9	139
198	Chemical Analysis of Graphite/Electrolyte Interface Formed in LiBOB-Based Electrolytes. *Electrochemical and Solid-State Letters*, **2003**, 6, A144		139
197	Change of Conductivity with Salt Content, Solvent Composition, and Temperature for Electrolytes of LiPF[sub 6] in Ethylene Carbonate-Ethyl Methyl Carbonate. *Journal of the Electrochemical Society*, **2001**, 148, A1196	3.9	138
196	Interphases in Sodium-Ion Batteries. *Advanced Energy Materials*, **2018**, 8, 1703082	21.8	137
195	Designing Low Impedance Interface Films Simultaneously on Anode and Cathode for High Energy Batteries. *Advanced Energy Materials*, **2018**, 8, 1800802	21.8	137
194	Correlating Li+ Solvation Sheath Structure with Interphasial Chemistry on Graphite. *Journal of Physical Chemistry C*, **2012**, 116, 26111-26117	3.8	135
193	LiBOB: Is it an alternative salt for lithium ion chemistry?. *Journal of Power Sources*, **2005**, 146, 79-85	8.9	135

192	Fluorinated interphase enables reversible aqueous zinc battery chemistries. *Nature Nanotechnology*, **2021**, 16, 902-910	28.7	133
191	Hybrid Mg2+/Li+ Battery with Long Cycle Life and High Rate Capability. *Advanced Energy Materials*, **2015**, 5, 1401507	21.8	128
190	High-Voltage Aqueous Na-Ion Battery Enabled by Inert-Cation-Assisted Water-in-Salt Electrolyte. *Advanced Materials*, **2020**, 32, e1904427	24	128
189	Li+-solvation/desolvation dictates interphasial processes on graphitic anode in Li ion cells. *Journal of Materials Research*, **2012**, 27, 2327-2341	2.5	122
188	Study of LiBF4 as an Electrolyte Salt for a Li-Ion Battery. *Journal of the Electrochemical Society*, **2002**, 149, A586	3.9	122
187	Flexible Aqueous Li-Ion Battery with High Energy and Power Densities. *Advanced Materials*, **2017**, 29, 1701972	24	121
186	An inorganic composite membrane as the separator of Li-ion batteries. *Journal of Power Sources*, **2005**, 140, 361-364	8.9	119
185	Understanding Thermodynamic and Kinetic Contributions in Expanding the Stability Window of Aqueous Electrolytes. *CheM*, **2018**, 4, 2872-2882	16.2	119
184	Effect of propylene carbonate on the low temperature performance of Li-ion cells. *Journal of Power Sources*, **2002**, 110, 216-221	8.9	114
183	Charge and discharge characteristics of a commercial LiCoO2-based 18650 Li-ion battery. *Journal of Power Sources*, **2006**, 160, 1403-1409	8.9	112
182	Solvation behavior of carbonate-based electrolytes in sodium ion batteries. *Physical Chemistry Chemical Physics*, **2016**, 19, 574-586	3.6	108
181	Study of SEI Layer Formed on Graphite Anodes in PC/LiBOB Electrolyte Using IR Spectroscopy. *Electrochemical and Solid-State Letters*, **2004**, 7, A224		108
180	A 63 m Superconcentrated Aqueous Electrolyte for High-Energy Li-Ion Batteries. *ACS Energy Letters*, **2020**, 5, 968-974	20.1	106
179	Formation of the Graphite/Electrolyte Interface by Lithium Bis(oxalato)borate. *Electrochemical and Solid-State Letters*, **2003**, 6, A117		106
178	Mobile Ions in Composite Solids. *Chemical Reviews*, **2020**, 120, 4169-4221	68.1	105
177	Energy storage emerging: A perspective from the Joint Center for Energy Storage Research. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 12550-12557	11.5	103
176	Optimization of reaction condition for solid-state synthesis of LiFePO4-C composite cathodes. *Journal of Power Sources*, **2005**, 147, 234-240	8.9	103
175	Reversible S /MgS Redox Chemistry in a MgTFSI /MgCl /DME Electrolyte for Rechargeable Mg/S Batteries. *Angewandte Chemie - International Edition*, **2017**, 56, 13526-13530	16.4	102

174	Preferential Solvation of Li+ Directs Formation of Interphase on Graphitic Anode. *Electrochemical and Solid-State Letters*, **2011**, 14, A154		102
173	Unique aqueous Li-ion/sulfur chemistry with high energy density and reversibility. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 6197-6202	11.5	100
172	Atomic force microscopy studies on molybdenum disulfide flakes as sodium-ion anodes. *Nano Letters*, **2015**, 15, 1018-24	11.5	99
171	Evaluation of Fluorinated Alkyl Phosphates as Flame Retardants in Electrolytes for Li-Ion Batteries: II. Performance in Cell. *Journal of the Electrochemical Society*, **2003**, 150, A170	3.9	99
170	Aligned Li Tunnels in Core-Shell Li(NiMnCo)O@LiFePO Enhances Its High Voltage Cycling Stability as Li-ion Battery Cathode. *Nano Letters*, **2016**, 16, 6357-6363	11.5	98
169	Li-Desolvation Dictating Lithium-Ion Battery's Low-Temperature Performances. *ACS Applied Materials & Interfaces*, **2017**, 9, 42761-42768	9.5	95
168	Long cycle life and high rate sodium-ion chemistry for hard carbon anodes. *Energy Storage Materials* , **2018**, 13, 274-282	19.4	93
167	Understanding Formation of Solid Electrolyte Interface Film on LiMn[sub 2]O[sub 4] Electrode. *Journal of the Electrochemical Society*, **2002**, 149, A1521	3.9	93
166	Liquid-Solid Phase Diagrams of Binary Carbonates for Lithium Batteries. *Journal of the Electrochemical Society*, **2000**, 147, 1688	3.9	93
165	Thermodynamics and Kinetics of Sulfur Cathode during Discharge in MgTFSI -DME Electrolyte. *Advanced Materials*, **2018**, 30, 1704313	24	90
164	Anion Solvation in Carbonate-Based Electrolytes. *Journal of Physical Chemistry C*, **2015**, 119, 27255-27264	4.8	89
163	Fluorinated Electrolytes for 5-V Li-Ion Chemistry: Probing Voltage Stability of Electrolytes with Electrochemical Floating Test. *Journal of the Electrochemical Society*, **2015**, 162, A1725-A1729	3.9	87
162	Whether EC and PC Differ in Interphasial Chemistry on Graphitic Anode and How. *Journal of the Electrochemical Society*, **2009**, 156, A751	3.9	87
161	Wide-Temperature Electrolytes for Lithium-Ion Batteries. *ACS Applied Materials & Interfaces*, **2017**, 9, 18826-18835	9.5	86
160	High energy-density and reversibility of iron fluoride cathode enabled via an intercalation-extrusion reaction. *Nature Communications*, **2018**, 9, 2324	17.4	86
159	LiBOB as Additive in LiPF[sub 6]-Based Lithium Ion Electrolytes. *Electrochemical and Solid-State Letters*, **2005**, 8, A365		86
158	Depolarized and fully active cathode based on Li(Ni0.5Co0.2Mn0.3)O2 embedded in carbon nanotube network for advanced batteries. *Nano Letters*, **2014**, 14, 4700-6	11.5	85
157	How Water Accelerates Bivalent Ion Diffusion at the Electrolyte/Electrode Interface. *Angewandte Chemie - International Edition*, **2018**, 57, 11978-11981	16.4	84

156	Manipulating electrolyte and solid electrolyte interphase to enable safe and efficient Li-S batteries. *Nano Energy*, **2018**, 50, 431-440	17.1	84
155	An improved electrolyte for the LiFePO4 cathode working in a wide temperature range. *Journal of Power Sources*, **2006**, 159, 702-707	8.9	83
154	Improving Electrochemical Stability and Low-Temperature Performance with Water/Acetonitrile Hybrid Electrolytes. *Advanced Energy Materials*, **2020**, 10, 1902654	21.8	83
153	PEDOT Encapsulated FeOF Nanorod Cathodes for High Energy Lithium-Ion Batteries. *Nano Letters*, **2015**, 15, 7650-6	11.5	82
152	Formation of Solid Electrolyte Interface in Lithium Nickel Mixed Oxide Electrodes during the First Cycling. *Electrochemical and Solid-State Letters*, **2002**, 5, A92		82
151	Advanced High-Voltage Aqueous Lithium-Ion Battery Enabled by "Water-in-Bisalt" Electrolyte. *Angewandte Chemie*, **2016**, 128, 7252-7257	3.6	80
150	Perspective—Fluorinating Interphases. *Journal of the Electrochemical Society*, **2019**, 166, A5184-A5186	3.9	78
149	Electrochemical impedance study of graphite/electrolyte interface formed in LiBOB/PC electrolyte. *Journal of Power Sources*, **2005**, 143, 197-202	8.9	77
148	Free-standing Na(2/3)Fe(1/2)Mn(1/2)O(2)@graphene film for a sodium-ion battery cathode. *ACS Applied Materials & Interfaces*, **2014**, 6, 4242-7	9.5	76
147	A Thermal Stabilizer for LiPF[sub 6]-Based Electrolytes of Li-Ion Cells. *Electrochemical and Solid-State Letters*, **2002**, 5, A206		74
146	Diethyl(thiophen-2-ylmethyl)phosphonate: a novel multifunctional electrolyte additive for high voltage batteries. *Journal of Materials Chemistry A*, **2018**, 6, 10990-11004	13	74
145	Molecular Dynamics Simulations and Experimental Study of Lithium Ion Transport in Dilithium Ethylene Dicarbonate. *Journal of Physical Chemistry C*, **2013**, 117, 7433-7444	3.8	73
144	A non-aqueous electrolyte for the operation of Li/air battery in ambient environment. *Journal of Power Sources*, **2011**, 196, 3906-3910	8.9	72
143	Enhanced performance of Li-ion cell with LiBF4-PC based electrolyte by addition of small amount of LiBOB. *Journal of Power Sources*, **2006**, 156, 629-633	8.9	71
142	Quaternary Onium Salts as Nonaqueous Electrolytes for Electrochemical Capacitors. *Journal of the Electrochemical Society*, **2001**, 148, A267	3.9	71
141	Converting detrimental HF in electrolytes into a highly fluorinated interphase on cathodes. *Journal of Materials Chemistry A*, **2018**, 6, 17642-17652	13	70
140	Evaluation on a water-based binder for the graphite anode of Li-ion batteries. *Journal of Power Sources*, **2004**, 138, 226-231	8.9	70
139	Janus Solid-Liquid Interface Enabling Ultrahigh Charging and Discharging Rate for Advanced Lithium-Ion Batteries. *Nano Letters*, **2015**, 15, 6102-9	11.5	69

138	Graphite/Electrolyte Interface Formed in LiBOB-Based Electrolytes. *Journal of the Electrochemical Society*, **2004**, 151, A2106	3.9	68
137	Electrolytes and Interphasial Chemistry in Li Ion Devices. *Energies*, **2010**, 3, 135-154	3.1	67
136	Liquid/Solid Phase Diagrams of Binary Carbonates for Lithium Batteries Part II. *Journal of the Electrochemical Society*, **2001**, 148, A299	3.9	67
135	Pomegranate-Structured Conversion-Reaction Cathode with a Built-in Li Source for High-Energy Li-Ion Batteries. *ACS Nano*, **2016**, 10, 5567-77	16.7	67
134	Activation of Oxygen-Stabilized Sulfur for Li and Na Batteries. *Advanced Functional Materials*, **2016**, 26, 745-752	15.6	66
133	Overlooked electrolyte destabilization by manganese (II) in lithium-ion batteries. *Nature Communications*, **2019**, 10, 3423	17.4	66
132	Fragility in Liquids and Polymers: New, Simple Quantifications and Interpretations. *Journal of Physical Chemistry B*, **1999**, 103, 3991-3996	3.4	66
131	Architecturing hierarchical function layers on self-assembled viral templates as 3D nano-array electrodes for integrated Li-ion microbatteries. *Nano Letters*, **2013**, 13, 293-300	11.5	64
130	Identification of LiH and nanocrystalline LiF in the solid-electrolyte interphase of lithium metal anodes. *Nature Nanotechnology*, **2021**, 16, 549-554	28.7	64
129	Effects of Tris(2,2,2-trifluoroethyl) Phosphate as a Flame-Retarding Cosolvent on Physicochemical Properties of Electrolytes of LiPF[sub 6] in EC-PC-EMC of 3:3:4 Weight Ratios. *Journal of the Electrochemical Society*, **2002**, 149, A1489	3.9	63
128	Graphite/Electrolyte Interface Formed in LiBOB-Based Electrolytes. *Electrochemical and Solid-State Letters*, **2004**, 7, A273		62
127	Prelithiation Activates Li(Ni0.5Mn0.3Co0.2)O2 for High Capacity and Excellent Cycling Stability. *Nano Letters*, **2015**, 15, 5590-6	11.5	61
126	Insight on lithium metal anode interphasial chemistry: Reduction mechanism of cyclic ether solvent and SEI film formation. *Energy Storage Materials*, **2019**, 17, 366-373	19.4	59
125	A better quantification of electrochemical stability limits for electrolytes in double layer capacitors. *Electrochimica Acta*, **2001**, 46, 1823-1827	6.7	58
124	Microporous poly(acrylonitrile-methyl methacrylate) membrane as a separator of rechargeable lithium battery. *Electrochimica Acta*, **2004**, 49, 3339-3345	6.7	57
123	Conductivity, Viscosity, and Their Correlation of a Super-Concentrated Aqueous Electrolyte. *Journal of Physical Chemistry C*, **2017**, 121, 2149-2153	3.8	54
122	Effect of Li2CO3-coating on the performance of natural graphite in Li-ion battery. *Electrochemistry Communications*, **2003**, 5, 979-982	5.1	54
121	Reclaiming graphite from spent lithium ion batteries ecologically and economically. *Electrochimica Acta*, **2019**, 313, 423-431	6.7	53

120	Lithium Metal Batteries Enabled by Synergetic Additives in Commercial Carbonate Electrolytes. *ACS Energy Letters*, **2021**, 6, 1839-1848	20.1	53
119	In situ lithiated FeF3/C nanocomposite as high energy conversion-reaction cathode for lithium-ion batteries. *Journal of Power Sources*, **2016**, 307, 435-442	8.9	52
118	Graphene sheets stabilized on genetically engineered M13 viral templates as conducting frameworks for hybrid energy-storage materials. *Small*, **2012**, 8, 1006-11	11	52
117	Microporous gel electrolyte Li-ion battery. *Journal of Power Sources*, **2004**, 125, 114-118	8.9	51
116	Harnessing the surface structure to enable high-performance cathode materials for lithium-ion batteries. *Chemical Society Reviews*, **2020**, 49, 4667-4680	58.5	49
115	Tailoring Electrolyte Composition for LiBOB. *Journal of the Electrochemical Society*, **2008**, 155, A733	3.9	49
114	Copper-coordinated cellulose ion conductors for solid-state batteries. *Nature*, **2021**, 598, 590-596	50.4	49
113	500 Wh kg Class Li Metal Battery Enabled by a Self-Organized Core-Shell Composite Anode. *Advanced Materials*, **2020**, 32, e2004793	24	49
112	Crossroads in the renaissance of rechargeable aqueous zinc batteries. *Materials Today*, **2021**, 45, 191-212	21.8	48
111	Self-Regulated Phenomenon of Inorganic Artificial Solid Electrolyte Interphase for Lithium Metal Batteries. *Nano Letters*, **2020**, 20, 4029-4037	11.5	47
110	Nonflammable electrolyte enhances battery safety. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 3205-6	11.5	47
109	Critical Factors Dictating Reversibility of the Zinc Metal Anode. *Energy and Environmental Materials*, **2020**, 3, 516-521	13	46
108	Conductivity and Viscosity of PC-DEC and PC-EC Solutions of LiBOB. *Journal of the Electrochemical Society*, **2005**, 152, A132	3.9	46
107	Understanding How Nitriles Stabilize Electrolyte/Electrode Interface at High Voltage. *Journal of Physical Chemistry Letters*, **2017**, 8, 6048-6052	6.4	45
106	Interfacially Induced Cascading Failure in Graphite-Silicon Composite Anodes. *Advanced Science*, **2019**, 6, 1801007	13.6	45
105	How electrolyte additives work in Li-ion batteries. *Energy Storage Materials*, **2019**, 20, 208-215	19.4	42
104	Structural origin of the high-voltage instability of lithium cobalt oxide. *Nature Nanotechnology*, **2021**, 16, 599-605	28.7	42
103	Reversible S0/MgSx Redox Chemistry in a MgTFSI2/MgCl2/DME Electrolyte for Rechargeable Mg/S Batteries. *Angewandte Chemie*, **2017**, 129, 13711-13715	3.6	41

102	Optimization of the forming conditions of the solid-state interface in the Li-ion batteries. *Journal of Power Sources*, **2004**, 130, 281-285	8.9	41
101	Li-conducting ionic rubbers for lithium battery and other applications. *Solid State Ionics*, **1994**, 69, 343-353	3.3	41
100	Polymer-in-□Quasi-Ionic Liquid□Electrolytes for High-Voltage Lithium Metal Batteries. *Advanced Energy Materials*, **2019**, 9, 1902108	21.8	39
99	Targeted Disruption of miR-17-92 Impairs Mouse Spermatogenesis by Activating mTOR Signaling Pathway. *Medicine (United States)*, **2016**, 95, e2713	1.8	38
98	Poor Stability of Li CO in the Solid Electrolyte Interphase of a Lithium-Metal Anode Revealed by Cryo-Electron Microscopy. *Advanced Materials*, **2021**, 33, e2100404	24	37
97	Stabilizing a High-Voltage Lithium-Rich Layered Oxide Cathode with a Novel Electrolyte Additive. *ACS Applied Materials & Interfaces*, **2019**, 11, 28841-28850	9.5	36
96	Evaluating LiBOB/Lactone Electrolytes in Large-Format Lithium-Ion Cells Based on Nickelate and Iron Phosphate. *Journal of the Electrochemical Society*, **2008**, 155, A959	3.9	36
95	New Lithium Salt Forms Interphases Suppressing Both Li Dendrite and Polysulfide Shuttling. *Advanced Energy Materials*, **2020**, 10, 1903937	21.8	35
94	Phase Diagram, Conductivity, and Glass Transition of LiTFSI□H2O Binary Electrolytes. *Journal of Physical Chemistry C*, **2018**, 122, 16624-16629	3.8	35
93	Molecular and anionic polymer and oligomer systems with microdecoupled conductivities. *Electrochimica Acta*, **2000**, 45, 1229-1236	6.7	34
92	Lithium Bis(oxalate)borate Reinforces the Interphase on Li-Metal Anodes. *ACS Applied Materials & Interfaces*, **2019**, 11, 20854-20863	9.5	33
91	Breathing and oscillating growth of solid-electrolyte-interphase upon electrochemical cycling. *Chemical Communications*, **2018**, 54, 814-817	5.8	33
90	Deciphering the paradox between the Co-intercalation of sodium-solvent into graphite and its irreversible capacity. *Energy Storage Materials*, **2020**, 26, 32-39	19.4	33
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