Mengqing Xu

List of Publications by Year
in descending order

64	4,241	94269 37	110170 64
papers	citations	h-index	g-index

65	65	65	2830
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Design of a novel electrolyte additive for high voltage LiCoO2 cathode lithium-ion batteries: Lithium 4-benzonitrile trimethyl borate. Journal of Power Sources, 2021, 503, 230033.	4.0	32
2	LiFSI and LiDFBOP Dual-Salt Electrolyte Reinforces the Solid Electrolyte Interphase on a Lithium Metal Anode. ACS Applied Materials & Interfaces, 2020, 12, 33719-33728.	4.0	65
3	Efficiently suppressing oxygen evolution in high voltage graphite/NCM pouch cell with tributyl borate as electrolyte additive. Electrochimica Acta, 2020, 354, 136722.	2.6	17
4	Significance of Electrolyte Additive Molecule Structure in Constructing Robust Interphases on High-Voltage Cathodes. ACS Applied Energy Materials, 2020, 3, 3049-3058.	2.5	34
5	Formation mechanism of protective interphase for high voltage cathodes by phenyl trifluoromethyl sulfide. Electrochimica Acta, 2020, 352, 136469.	2.6	14
6	Highly effective fabrication of two dimensional metal oxides as high performance lithium storage anodes. Journal of Materials Chemistry A, 2019, 7, 3924-3932.	5.2	19
7	A self-healing interface on lithium metal with lithium difluoro (bisoxalato) phosphate for enhanced lithium electrochemistry. Journal of Materials Chemistry A, 2019, 7, 26002-26010.	5.2	24
8	Covalent organic framework-regulated ionic transportation for high-performance lithium-ion batteries. Journal of Materials Chemistry A, 2019, 7, 26540-26548.	5.2	48
9	Functionalized N-doped hollow carbon spheres as sulfur host with enhanced electrochemical performances of lithium-sulfur batteries. Ionics, 2019, 25, 503-511.	1.2	17
10	Insight into the Mechanism of Improved Interfacial Properties between Electrodes and Electrolyte in the Graphite/LiNi_{0.6}Mn_{0.2}Co_{0.2}O₂ Cell via Incorporation of 4-Propyl-[1,3,2]dioxathiolane-2,2-dioxide (PDTD). ACS Applied Materials & Interfaces, 2018, 10, 16400-16409.	4.0	47
11	Optimal concentration of electrolyte additive for cyclic stability improvement of high-voltage cathode of lithium-ion battery. Ionics, 2018, 24, 661-670.	1.2	10
12	Constructing Unique Cathode Interface by Manipulating Functional Groups of Electrolyte Additive for Graphite/LiNi_{0.6}Co_{0.2}Mn_{0.2}O₂ Cells at High Voltage. Journal of Physical Chemistry Letters, 2018, 9, 3434-3445.	2.1	77
13	Diethyl(thiophen-2-ylmethyl)phosphonate: a novel multifunctional electrolyte additive for high voltage batteries. Journal of Materials Chemistry A, 2018, 6, 10990-11004.	5.2	105
14	Mechanism of cycling degradation and strategy to stabilize a nickel-rich cathode. Journal of Materials Chemistry A, 2018, 6, 16149-16163.	5.2	97
15	Insight into the capacity fading of layered lithium-rich oxides and its suppression via a film-forming electrolyte additive. RSC Advances, 2018, 8, 25794-25801.	1.7	23
16	Designing Low Impedance Interface Films Simultaneously on Anode and Cathode for High Energy Batteries. Advanced Energy Materials, 2018, 8, 1800802.	10.2	212
17	Layered lithium-rich oxide nanoparticles: low-temperature synthesis in mixed molten salt and excellent performance as cathode of lithium-ion battery. Ionics, 2017, 23, 1955-1966.	1.2	3
18	Structural Exfoliation of Layered Cathode under High Voltage and Its Suppression by Interface Film Derived from Electrolyte Additive. ACS Applied Materials & Interfaces, 2017, 9, 12021-12034.	4.0	62

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19	Significantly improved cyclability of lithium manganese oxide, simultaneously inhibiting electrochemical and thermal decomposition of the electrolyte by the use of an additive. RSC Advances, 2017, 7, 46594-46603.	1.7	9
20	Tetrafluoroterephthalonitrile: A Novel Electrolyte Additive for High-Voltage Lithium Cobalt Oxide/Graphite Battery. Electrochimica Acta, 2017, 256, 307-315.	2.6	31
21	Enhancing electrochemical performance of Li/LiMn2O4 cell at elevated temperature by tailoring cathode interface via diethyl phenylphosphonite (DEPP) incorporation. Journal of Applied Electrochemistry, 2017, 47, 1161-1172.	1.5	17
22	Maintaining structural integrity of 4.5ÂV lithium cobalt oxide cathode with fumaronitrile as a novel electrolyte additive. Journal of Power Sources, 2017, 338, 108-116.	4.0	103
23	Insight into self-discharge of layered lithium-rich oxide cathode in carbonate-based electrolytes with and without additive. Journal of Power Sources, 2016, 324, 17-25.	4.0	47
24	Dimethylacetamide as a film-forming additive for improving the cyclic stability of high voltage lithium-rich cathode at room and elevated temperature. Electrochimica Acta, 2016, 204, 192-198.	2.6	30
25	A novel imidazole-based electrolyte additive for improved electrochemical performance of high voltage nickel-rich cathode coupled with graphite anode lithium ion battery. Journal of Power Sources, 2016, 332, 312-321.	4.0	59
26	Improving High Voltage Interfacial and Structural Stability of Layered Lithium-Rich Oxide Cathode by Using a Boracic Electrolyte Additive. Journal of the Electrochemical Society, 2016, 163, A2258-A2264.	1.3	24
27	Effect of ethylene glycol bis (propionitrile) ether (EGBE) on the performance and interfacial chemistry of lithium-rich layered oxide cathode. Journal of Power Sources, 2016, 329, 216-224.	4.0	32
28	Understanding Interfacial Properties between Li-Rich Layered Oxide and Electrolyte Containing Triethyl Borate. Journal of Physical Chemistry C, 2016, 120, 26899-26907.	1.5	31
29	Constructing a Protective Interface Film on Layered Lithium-Rich Cathode Using an Electrolyte Additive with Special Molecule Structure. ACS Applied Materials & Interfaces, 2016, 8, 30116-30125.	4.0	115
30	Application of tris(trimethylsilyl)borate to suppress self-discharge of layered nickel cobalt manganese oxide for high energy battery. Applied Energy, 2016, 175, 505-511.	5.1	34
31	Development of novel lithium borate additives for designed surface modification of high voltage LiNi_{0.5}Mn_{1.5}O₄ cathodes. Energy and Environmental Science, 2016, 9, 1308-1319.	15.6	159
32	Performance improvement of graphite/LiNi0.4Co0.2Mn0.4O2 battery at high voltage with added Tris (trimethylsilyl) phosphate. Journal of Power Sources, 2015, 274, 1155-1161.	4.0	44
33	Sulfur loaded in curved graphene and coated with conductive polyaniline: preparation and performance as a cathode for lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2015, 3, 18098-18104.	5.2	47
34	Tris(trimethylsilyl)borate as an electrolyte additive for improving interfacial stability of high voltage layered lithium-rich oxide cathode/carbonate-based electrolyte. Journal of Power Sources, 2015, 285, 360-366.	4.0	118
35	Improved cyclic stability of layered lithium cobalt oxide at high potential via cathode electrolyte interphase formed by 4-(trifluoromethyl) benzonitrile. Electrochimica Acta, 2015, 184, 94-101.	2.6	31
36	Effect of particle size on rate capability and cyclic stability of LiNi0.5Mn1.5O4 cathode for high-voltage lithium ion battery. Journal of Solid State Electrochemistry, 2015, 19, 569-576.	1.2	37

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37	Generation of Cathode Passivation Films via Oxidation of Lithium Bis(oxalato) Borate on High Voltage Spinel (LiNi_{0.5}Mn_{1.5}O₄). Journal of Physical Chemistry C, 2014, 118, 7363-7368.	1.5	118
38	Tris(trimethylsilyl)phosphite as electrolyte additive for high voltage layered lithium nickel cobalt manganese oxide cathode of lithium ion battery. Electrochimica Acta, 2014, 147, 565-571.	2.6	119
39	Improving high voltage stability of lithium cobalt oxide/graphite battery via forming protective films simultaneously on anode and cathode by using electrolyte additive. Electrochimica Acta, 2014, 141, 263-270.	2.6	58
40	Self-discharge suppression of 4.9ÂV LiNi0.5Mn1.5O4 cathode by using tris(trimethylsilyl)borate as an electrolyte additive. Journal of Power Sources, 2014, 272, 501-507.	4.0	72
41	Tris (trimethylsilyl) borate (TMSB) as a cathode surface film forming additive for 5V Li/LiNi0.5Mn1.5O4 Li-ion cells. Electrochimica Acta, 2014, 147, 31-39.	2.6	71
42	Enhanced cyclability of LiNi0.5Mn1.5O4 cathode in carbonate based electrolyte with incorporation of tris(trimethylsilyl)phosphate (TMSP). Journal of Power Sources, 2014, 261, 148-155.	4.0	110
43	4-(Trifluoromethyl)-benzonitrile: A novel electrolyte additive for lithium nickel manganese oxide cathode of high voltage lithium ion battery. Journal of Power Sources, 2014, 267, 560-565.	4.0	94
44	Performance improvement of phenyl acetate as propylene carbonate-based electrolyte additive for lithium ion battery by fluorine-substituting. Journal of Power Sources, 2014, 267, 182-187.	4.0	35
45	Dimethoxydiphenylsilane (DDS) as an Electrolyte Additive for High Voltage Li-ion Batteries. Electrochemistry, 2014, 82, 1052-1055.	0.6	3
46	Performance of lithium tetrafluorooxalatophosphate in methyl butyrate electrolytes. Journal of Applied Electrochemistry, 2013, 43, 497-505.	1.5	10
47	Dimethoxydiphenylsilane (DDS) as overcharge protection additive for lithium-ion batteries. Journal of Power Sources, 2013, 244, 499-504.	4.0	20
48	A novel electrolyte with the ability to form a solid electrolyte interface on the anode and cathode of a LiMn2O4/graphite battery. Journal of Materials Chemistry A, 2013, 1, 12954.	5.2	135
49	Properties of solid electrolyte interphase formed by prop-1-ene-1,3-sultone on graphite anode of Li-ion batteries. Electrochimica Acta, 2013, 105, 1-6.	2.6	95
50	Improving the Performance of Graphite/ LiNi_{0.5}Mn_{1.5}O₄Cells at High Voltage and Elevated Temperature with Added Lithium Bis(oxalato) Borate (LiBOB). Journal of the Electrochemical Society, 2013, 160, A2005-A2013.	1.3	110
51	Improved Performance of LiNi_{0.5}Mn_{1.5}O₄Cathodes with Electrolytes Containing Dimethylmethylphosphonate (DMMP). Journal of the Electrochemical Society, 2012, 159, A2130-A2134.	1.3	65
52	Prop-1-ene-1,3-sultone as SEI formation additive in propylene carbonate-based electrolyte for lithium ion batteries. Electrochemistry Communications, 2012, 17, 92-95.	2.3	124
53	Tris (pentafluorophenyl) phosphine: An electrolyte additive for high voltage Li-ion batteries. Electrochemistry Communications, 2012, 18, 123-126.	2.3	121
54	Experimental and Theoretical Investigations of Dimethylacetamide (DMAc) as Electrolyte Stabilizing Additive for Lithium Ion Batteries. Journal of Physical Chemistry C, 2011, 115, 6085-6094.	1.5	117

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55	Effects of different electrode materials on the performance of lithium tetrafluorooxalatophosphate (LiFOP) electrolyte. Journal of Power Sources, 2011, 196, 8073-8084.	4.0	27
56	The reductive mechanism of ethylene sulfite as solid electrolyte interphase film-forming additive for lithium ion battery. Journal of Power Sources, 2011, 196, 7044-7047.	4.0	77
57	Investigation and application of lithium difluoro(oxalate)borate (LiDFOB) as additive to improve the thermal stability of electrolyte for lithium-ion batteries. Journal of Power Sources, 2011, 196, 6794-6801.	4.0	188
58	Non-woven fabric supported poly(acrylonitrile-vinyl acetate) gel electrolyte for lithium ion battery use. Journal of Applied Electrochemistry, 2010, 40, 2185-2191.	1.5	10
59	Nonflammable Electrolytes for Lithium-Ion Batteries Containing Dimethyl Methylphosphonate. Journal of the Electrochemical Society, 2010, 157, A1113.	1.3	68
60	Investigation of Lithium Tetrafluorooxalatophosphate [LiPF[sub 4](C[sub 2]O[sub 4])] as a Lithium-Ion Battery Electrolyte for Elevated Temperature Performance. Journal of the Electrochemical Society, 2010, 157, A115.	1.3	51
61	Effect of propane sultone on elevated temperature performance of anode and cathode materials in lithium-ion batteries. Journal of Power Sources, 2009, 193, 804-809.	4.0	117
62	Theoretical Insight into Oxidative Decomposition of Propylene Carbonate in the Lithium Ion Battery. Journal of Physical Chemistry B, 2009, 113, 5181-5187.	1.2	109
63	Theoretical Investigations on Oxidative Stability of Solvents and Oxidative Decomposition Mechanism of Ethylene Carbonate for Lithium Ion Battery Use. Journal of Physical Chemistry B, 2009, 113, 16596-16602.	1.2	221
64	Effect of Butyl Sultone on the Li-ion Battery Performance and Interface of Graphite Electrode. Acta Physico-chimica Sinica, 2006, 22, 335-340.	0.6	18