Yingchun Lyu

List of Publications by Year
in descending order

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44 papers	2,658 citations	257450 24 h-index	254184 43 g-index
44 all docs	44 docs citations	44 times ranked	3589 citing authors

#	Article	IF	Citations
1	Understanding the Rate Capability of Highâ€Energyâ€Density Liâ€Rich Layered Li_{1.2}Ni_{0.15}Co_{0.1}Mn_{0.55}O₂ Cathode Materials. Advanced Energy Materials, 2014, 4, 1300950.	19.5	480
2	An Overview on the Advances of LiCoO₂ Cathodes for Lithiumâ€Ion Batteries. Advanced Energy Materials, 2021, 11, 2000982.	19.5	418
3	Rechargeable Li/CO2â€“O2 (2â€‰:â€‰1) battery and Li/CO2 battery. Energy and Environmental Science, 2014, 7, 677.	30.8	281
4	A highly reversible, low-strain Mg-ion insertion anode material for rechargeable Mg-ion batteries. NPG Asia Materials, 2014, 6, e120-e120.	7.9	130
5	Feâ€Based Tunnelâ€Type Na_{0.61}[Mn_{0.27}Fe_{0.34}Ti_{0.39}]O₂ Designed by a New Strategy as a Cathode Material for Sodiumâ€Ion Batteries. Advanced Energy Materials, 2015, 5, 1501156.	19.5	122
6	Enhanced Surface Chemical and Structural Stability of Ni-Rich Cathode Materials by Synchronous Lithium-Ion Conductor Coating for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 13813-13823.	8.0	107
7	Improved Electrochemical Performances of LiCoO₂ at Elevated Voltage and Temperature with an In Situ Formed Spinel Coating Layer. ACS Applied Materials & Interfaces, 2018, 10, 31271-31279.	8.0	81
8	Achieving Stable Cycling of LiCoO₂ at 4.6 V by Multilayer Surface Modification. Advanced Functional Materials, 2021, 31, 2001974.	14.9	77
9	Nanotube Li₂MoO₄: a novel and high-capacity material as a lithium-ion battery anode. Nanoscale, 2014, 6, 13660-13667.	5.6	64
10	Explore the Effects of Microstructural Defects on Voltage Fade of Li- and Mn-Rich Cathodes. Nano Letters, 2016, 16, 5999-6007.	9.1	64
11	Hard carbon micro-nano tubes derived from kapok fiber as anode materials for sodium-ion batteries and the sodium-ion storage mechanism. Chemical Communications, 2020, 56, 778-781.	4.1	59
12	Probing Reversible Multielectron Transfer and Structure Evolution of Li_{1.2}Cr_{0.4}Mn_{0.4}O₂ Cathode Material for Li-Ion Batteries in a Voltage Range of 1.0â€“4.8 V. Chemistry of Materials, 2015, 27, 5238-5252.	6.7	57
13	Deciphering the Oxygen Absorption Preâ€edge: A Caveat on its Application for Probing Oxygen Redox Reactions in Batteries. Energy and Environmental Materials, 2021, 4, 246-254.	12.8	56
14	Sodium storage mechanism and electrochemical performance of layered GeP as anode for sodium ion batteries. Journal of Power Sources, 2019, 433, 126682.	7.8	46
15	Atomic insight into electrochemical inactivity of lithium chromate (LiCrO2): Irreversible migration of chromium into lithium layers in surface regions. Journal of Power Sources, 2015, 273, 1218-1225.	7.8	45
16	Structural integrityâ€”Searching the key factor to suppress the voltage fade of Li-rich layered cathode materials through 3D X-ray imaging and spectroscopy techniques. Nano Energy, 2016, 28, 164-171.	16.0	44
17	Recent advances in high energy-density cathode materials for sodium-ion batteries. Sustainable Materials and Technologies, 2019, 21, e00098.	3.3	43
18	Correlations between Transition-Metal Chemistry, Local Structure, and Global Structure in Li₂Ru_{0.5}Mn_{0.5}O₃ Investigated in a Wide Voltage Window. Chemistry of Materials, 2017, 29, 9053-9065.	6.7	40

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19	Narrowing Working Voltage Window to Improve Layered GeP Anode Cycling Performance for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 17466-17473.	8.0	33
20	Study on the effect of Ni and Mn doping on the structural evolution of LiCoO2 under 4.6ÂV high-voltage cycling. Journal of Alloys and Compounds, 2020, 842, 155827.	5.5	32
21	Real-Time TEM Study of Nanopore Evolution in Battery Materials and Their Suppression for Enhanced Cycling Performance. Nano Letters, 2019, 19, 3074-3082.	9.1	29
22	Electrochemical and in-situ X-ray diffraction studies of Na1.2Ni0.2Mn0.2Ru0.4O2 as a cathode material for sodium-ion batteries. Electrochemistry Communications, 2018, 87, 71-75.	4.7	27
23	In situ TEM and half cell investigation of sodium storage in hexagonal FeSe nanoparticles. Chemical Communications, 2019, 55, 5611-5614.	4.1	27
24	One-Step Integrated Comodification to Improve the Electrochemical Performances of High-Voltage LiCoO₂ for Lithium-Ion Batteries. ACS Sustainable Chemistry and Engineering, 2020, 8, 9346-9355.	6.7	27
25	Al2O3 coated Li1.2Ni0.2Mn0.2Ru0.4O2 as cathode material for Li-ion batteries. Journal of Alloys and Compounds, 2018, 741, 398-403.	5.5	23
26	Systematic investigation of the Binder's role in the electrochemical performance of tin sulfide electrodes in SIBs. Journal of Power Sources, 2018, 401, 195-203.	7.8	23
27	Forming a Stable CEI Layer on LiNi_{0.5}Mn_{1.5}O₄Cathode by the Synergy Effect of FEC and HDI. Journal of the Electrochemical Society, 2018, 165, A2032-A2036.	2.9	22
28	Enhanced proton conductivity and dimensional stability of proton exchange membrane based on sulfonated poly(arylene ether sulfone) and graphene oxide. Materials Research Bulletin, 2018, 103, 142-149.	5.2	21
29	Enhanced cycling stability of high voltage LiCoO2 by surface phosphorylation. Journal of Alloys and Compounds, 2019, 803, 348-353.	5.5	21
30	Adjusting Oxygen Redox Reaction and Structural Stability of Li- and Mn-Rich Cathodes by Zr-Ti Dual-Doping. ACS Applied Materials & Interfaces, 2022, 14, 5308-5317.	8.0	21
31	Porous scaffold of TiO2 for dendrite-free lithium metal anode. Journal of Alloys and Compounds, 2019, 791, 364-370.	5.5	20
32	Surface structure evolution of cathode materials for Li-ion batteries. Chinese Physics B, 2016, 25, 018209.	1.4	19
33	High-throughput characterization methods for lithium batteries. Journal of Materiomics, 2017, 3, 221-229.	5.7	17
34	All roads lead to Rome: Sodiation of different-stacked SnS2. Nano Energy, 2020, 67, 104276.	16.0	14
35	A New Oxyfluorinated Titanium Phosphate Anode for A High-Energy Lithium-Ion Battery. ACS Applied Materials & Interfaces, 2015, 7, 1270-1274.	8.0	12
36	Improved electrochemical kinetics and interfacial stability of cobalt-free lithium-rich layered oxides via thiourea treatment. Chemical Engineering Journal, 2022, 450, 138114.	12.7	12

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37	A Hybrid Ionic and Electronic Conductive Coating Layer for Enhanced Electrochemical Performance of 4.6 V LiCoO₂. ACS Applied Materials & Interfaces, 2021, 13, 42917-42926.	8.0	10
38	A vacancy-free sodium manganese hexacyanoferrate as cathode for sodium-ion battery by high-salt-concentration preparation. Journal of Alloys and Compounds, 2021, 887, 161388.	5.5	10
39	The synergistic effect of carbon coating and CNTs compositing on the hard carbon anode for sodium ion batteries. RSC Advances, 2019, 9, 21667-21670.	3.6	8
40	Cracks Formation in Lithium-Rich Cathode Materials for Lithium-Ion Batteries during the Electrochemical Process. Energies, 2018, 11, 2712.	3.1	7
41	Understanding the Structural Evolution and Storage Mechanism of NASICON-Structure Mg_{0.5}Ti₂(PO₄)₃ for Li-Ion and Na-Ion Batteries. ACS Sustainable Chemistry and Engineering, 2021, 9, 13414-13423.	6.7	5
42	Fabricating a thin gradient surface layer to enhance the cycle stability of Ni-rich cathode materials. Journal of Alloys and Compounds, 2022, 893, 162162.	5.5	2
43	Layered and Spinel Structural Cathodes. Green Energy and Technology, 2015, , 67-92.	0.6	1
44	Effect of Fluorine Substitution on the Electrochemical Property and Structural Stability of a Lithium-Excess Cation Disordered Rock-Salt Cathode. Chinese Physics Letters, 2021, 38, 088201.	3.3	1