Ling Huang

List of Publications by Year
in descending order

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Version: 2024-02-01

109 papers	5,000 citations	71102 41 h-index	106344 65 g-index
109 all docs	109 docs citations	109 times ranked	5550 citing authors

#	Article	IF	Citations
1	Efficient diffusion of superdense lithium via atomic channels for dendrite-free lithiumâ€“metal batteries. Energy and Environmental Science, 2022, 15, 196-205.	30.8	27
2	Co/Li-dual-site doping towards LiCoO₂ as a high-voltage, fast-charging, and long-cycling cathode material. Journal of Materials Chemistry A, 2022, 10, 5295-5304.	10.3	21
3	Nonvolatile and Nonflammable Sulfolane-Based Electrolyte Achieving Effective and Safe Operation of the Liâ€“O₂ Battery in Open O₂ Environment. Nano Letters, 2022, 22, 815-821.	9.1	16
4	A novel high-energy-density lithium-free anode dual-ion battery and in situ revealing the interface structure evolution. Chemical Science, 2022, 13, 4058-4069.	7.4	5
5	Regulating the Architecture of a Solid Electrolyte Interface on a Li-Metal Anode of a Liâ€“O₂ Battery by a Dithiobiuret Additive. , 2022, 4, 682-691.		5
6	Rigid and Flexible SEI Layer Formed Over a Crossâ€Linked Polymer for Enhanced Ultrathin Li Metal Anode Performance. Advanced Energy Materials, 2022, 12, .	19.5	42
7	Investigation and Suppression of Oxygen Release by LiNi_{0.8}Co_{0.1}Mn_{0.1}O₂ Cathode under Overcharge Conditions. Advanced Energy Materials, 2022, 12, .	19.5	40
8	Entropy and crystal-facet modulation of P2-type layered cathodes for long-lasting sodium-based batteries. Nature Communications, 2022, 13, .	12.8	61
9	Origin and regulation of oxygen redox instability in high-voltage battery cathodes. Nature Energy, 2022, 7, 808-817.	39.5	55
10	Copper Substitution in P2-Type Sodium Layered Oxide To Mitigate Phase Transition and Enhance Cyclability of Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 29813-29821.	8.0	4
11	Stabilizing Liâ€“O₂ Batteries with Multifunctional Fluorinated Graphene. Nano Letters, 2022, 22, 4985-4992.	9.1	24
12	Enhancing Li ion transfer efficacy in PEO-based solid polymer electrolytes to promote cycling stability of Li-metal batteries. Journal of Materials Chemistry A, 2022, 10, 16087-16094.	10.3	24
13	Engineering the interface between LiCoO₂ and Li₁₀GeP₂S₁₂ solid electrolytes with an ultrathin Li₂CoTi₃O₈ interlayer to boost the performance of all-solid-state batteries. Energy and Environmental Science, 2021, 14, 437-450.	30.8	82
14	NiCo₂O₄/CNF Separator Modifiers for Trapping and Catalyzing Polysulfides for High-Performance Lithiumâ€“Sulfur Batteries with High Sulfur Loadings and Lean Electrolytes. ACS Sustainable Chemistry and Engineering, 2021, 9, 1804-1813.	6.7	31
15	Amidinothiourea as a new deposition-regulating additive for dendrite-free lithium metal anodes. Chemical Communications, 2021, 57, 10055-10058.	4.1	9
16	Succinic anhydride as a deposition-regulating additive for dendrite-free lithium metal anodes. Journal of Materials Chemistry A, 2021, 9, 17317-17326.	10.3	25
17	Synergistic Dualâ€Additive Electrolyte for Interphase Modification to Boost Cyclability of Layered Cathode for Sodium Ion Batteries. Advanced Functional Materials, 2021, 31, 2010500.	14.9	43
18	RuO2 nanoparticles supported on Ni and N co-doped carbon nanotubes as an efficient bifunctional electrocatalyst of lithium-oxygen battery. Science China Materials, 2021, 64, 2397-2408.	6.3	8

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19	Multivalent Amide-Hydrogen-Bond Supramolecular Binder Enhances the Cyclic Stability of Silicon-Based Anodes for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 22567-22576.	8.0	26
20	Customizing Multifunctional Sulfur Host Materials Via a General Anionâ€Exchange Process with Metalâ€“Organic Solid. Advanced Functional Materials, 2021, 31, 2104513.	14.9	4
21	A â€œBiconcave-Alleviatedâ€•Strategy to Construct Aspergillus niger-Derived Carbon/MoS₂ for Ultrastable Sodium Ion Storage. ACS Nano, 2021, 15, 13814-13825.	14.6	49
22	Improving the Electrochemical Property of Silicon Anodes through Hydrogen-Bonding Cross-Linked Thiourea-Based Polymeric Binders. ACS Applied Materials & Interfaces, 2021, 13, 639-649.	8.0	36
23	Influence of Carbonate Solvents on Solid Electrolyte Interphase Composition over Si Electrodes Monitored by In Situ and Ex Situ Spectroscopies. ACS Omega, 2021, 6, 27335-27350.	3.5	14
24	Formulating a New Electrolyte: Synergy between Low-Polar and Non-polar Solvents in Tailoring the Solid Electrolyte Interface for the Silicon Anode. ACS Applied Materials & Interfaces, 2021, 13, 55700-55711.	8.0	7
25	Fabrication of multi-shell coated silicon nanoparticles via in-situ electroless deposition as high performance anodes for lithium ion batteries. Journal of Energy Chemistry, 2020, 48, 160-168.	12.9	37
26	Synergetic Effect of Ru and NiO in the Electrocatalytic Decomposition of Li₂CO₃ to Enhance the Performance of a Li-CO₂/O₂ Battery. ACS Catalysis, 2020, 10, 1640-1651.	11.2	85
27	Metal Organic Framework Nanorod Doped Solid Polymer Electrolyte with Decreased Crystallinity for Highâ€Performance Allâ€Solidâ€State Lithium Batteries. ChemElectroChem, 2020, 7, 1125-1134.	3.4	49
28	Boosting Superior Lithium Storage Performance of Alloyâ€Based Anode Materials via Ultraconformal Sb Coatingâ€“Derived Favorable Solidâ€Electrolyte Interphase. Advanced Energy Materials, 2020, 10, 1903186.	19.5	29
29	In Situ Construction of an Ultrarobust and Lithiophilic Li-Enriched Liâ€“N Nanoshield for High-Performance Ge-Based Anode Materials. ACS Energy Letters, 2020, 5, 3490-3497.	17.4	29
30	Insights into the Li incorporation effect in Ni/Co-free P2-type Na_{0.6}Mn_{0.8}Cu_{0.2}O₂ for sodium-ion batteries. Journal of Materials Chemistry A, 2020, 8, 22346-22355.	10.3	10
31	High Cycling Performance Liâ€S Battery via Fenugreek Gum Binder Through Chemical Bonding of the Binder with Polysulfides in Nanosulfur@CNFs Cathode. ChemistrySelect, 2020, 5, 8969-8979.	1.5	11
32	Cubic MnSâ€“FeS₂ Composites Derived from a Prussian Blue Analogue as Anode Materials for Sodium-Ion Batteries with Long-Term Cycle Stability. ACS Applied Materials & Interfaces, 2020, 12, 43624-43633.	8.0	53
33	Understanding the role of water-soluble guar gum binder in reducing capacity fading and voltage decay of Li-rich cathode for Li-ion batteries. Electrochimica Acta, 2020, 351, 136401.	5.2	16
34	Biomimetic micro cell cathode for high performance lithiumâ€“sulfur batteries. Nano Energy, 2020, 72, 104680.	16.0	42
35	High-Voltage LiCoO₂ Material Encapsulated in a Li₄Ti₅O₁₂Ultrathin Layer by High-Speed Solid-Phase Coating Process. ACS Applied Energy Materials, 2020, 3, 2593-2603.	5.1	36
36	Ultralowâ€Strain Znâ€Substituted Layered Oxide Cathode with Suppressed P2â€“O2 Transition for Stable Sodium Ion Storage. Advanced Functional Materials, 2020, 30, 1910327.	14.9	110

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37	Suppressing lithium dendrite growth by a synergetic effect of uniform nucleation and inhibition. Journal of Materials Chemistry A, 2020, 8, 4300-4307.	10.3	29
38	A fundamental understanding of the Fe/Ti doping induced structure formation process to realize controlled synthesis of layer-tunnel Na0.6MnO2 cathode. Nano Energy, 2020, 70, 104539.	16.0	26
39	A solid-state dendrite-free lithium-metal battery with improved electrode interphase and ion conductivity enhanced by a bifunctional solid plasticizer. Journal of Materials Chemistry A, 2019, 7, 19565-19572.	10.3	32
40	Synthesis and Operando Sodiation Mechanistic Study of Nitrogenâ€Doped Porous Carbon Coated Bimetallic Sulfide Hollow Nanocubes as Advanced Sodium Ion Battery Anode. Advanced Energy Materials, 2019, 9, 1902312.	19.5	74
41	A special enabler for boosting cyclic life and rate capability of LiNi0.8Co0.1Mn0.1O2: Green and simple additive. Nano Energy, 2019, 65, 104084.	16.0	88
42	Si anode for next-generation lithium-ion battery. Current Opinion in Electrochemistry, 2019, 18, 46-54.	4.8	48
43	Ultrahigh sulfur content up to 93Âwt% encapsulated in multilayer nanoshell of V/V2O5 composite to suppress shuttle effect of lithiumâ€“sulfur battery with high-performance. Materials Today Energy, 2019, 13, 267-276.	4.7	29
44	High-Energy Density Li metal Dual-Ion Battery with a Lithium Nitrate-Modified Carbonate-Based Electrolyte. ACS Applied Materials & Interfaces, 2019, 11, 18504-18510.	8.0	47
45	Probing into the working mechanism of Mg versus Co in enhancing the electrochemical performance of P2-Type layered composite for sodium-ion batteries. Nano Energy, 2019, 60, 162-170.	16.0	48
46	Novel MnOâ€“Graphite Dual-Ion Battery and New Insights into Its Reaction Mechanism during Initial Cycle by Operando Techniques. ACS Applied Materials & Interfaces, 2019, 11, 12570-12577.	8.0	35
47	Revealing of the Activation Pathway and Cathode Electrolyte Interphase Evolution of Li-Rich 0.5Li₂MnO₃·0.5LiNi_{0.3}Co_{0.3}Mn_{0.4}O₂ Cathode by in Situ Electrochemical Quartz Crystal Microbalance. ACS Applied Materials & Interfaces, 2019, 11, 16214-16222.	8.0	23
48	Aluminum-Based Metalâ€“Organic Frameworks Derived Al₂O₃-Loading Mesoporous Carbon as a Host Matrix for Lithium-Metal Anodes. ACS Applied Materials & Interfaces, 2019, 11, 47939-47947.	8.0	26
49	Coreâ€“Shell Structured S@Co(OH)₂ with a Carbon-Nanofiber Interlayer: A Conductive Cathode with Suppressed Shuttling Effect for High-Performance Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2019, 11, 4065-4073.	8.0	35
50	High-performance rechargeable Li-CO2/O2 battery with Ru/N-doped CNT catalyst. Chemical Engineering Journal, 2019, 363, 224-233.	12.7	58
51	Aluminum-sulfur composites for Li S batteries with a high-rate performance. Composites Part B: Engineering, 2019, 164, 740-746.	12.0	7
52	Cu²⁺ Dual-Doped Layer-Tunnel Hybrid Na_{0.6}Mn_{1â€“x}Cu_xO₂ as a Cathode of Sodium-Ion Battery with Enhanced Structure Stability, Electrochemical Property, and Air Stability. ACS Applied Materials & Interfaces, 2018, 10, 10147-10156.	8.0	98
53	Sodiumâ€Alginateâ€Based Binders for Lithiumâ€Rich Cathode Materials in Lithiumâ€Ion Batteries to Suppress Voltage and Capacity Fading. ChemElectroChem, 2018, 5, 1321-1329.	3.4	29
54	Sulfur Microspheres Encapsulated in Porous Silverâ€Based Shell with Superior Performance for Lithiumâ€Sulfur Batteries. ChemElectroChem, 2018, 5, 1683-1690.	3.4	9

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55	Novel Sulfur Host Composed of Cobalt and Porous Graphitic Carbon Derived from MOFs for the High-Performance Liâ€“S Battery. ACS Applied Materials & Interfaces, 2018, 10, 13499-13508.	8.0	54
56	Tuning Electrochemical Properties of Li-Rich Layered Oxide Cathodes by Adjusting Co/Ni Ratios and Mechanism Investigation Using in situ X-ray Diffraction and Online Continuous Flow Differential Electrochemical Mass Spectrometry. ACS Applied Materials & Interfaces, 2018, 10, 12666-12677.	8.0	72
57	In Operando Investigation of the Structural Evolution during Calcination and Corresponding Enhanced Performance of Three-Dimensional Na₂Ti₆O₁₃@Câ€“N Hierarchical Microflowers. Industrial & Engineering Chemistry Research, 2018, 57, 17430-17436.	3.7	5
58	Enabling Lithium-Metal Anode Encapsulated in a 3D Carbon Skeleton with a Superior Rate Performance and Capacity Retention in Full Cells. ACS Applied Materials & Interfaces, 2018, 10, 35296-35305.	8.0	19
59	A Natural Biopolymer Film as a Robust Protective Layer to Effectively Stabilize Lithiumâ€Metal Anodes. Small, 2018, 14, e1801054.	10.0	61
60	Submicro-sized Siâ€“Ge solid solutions with high capacity and long cyclability for lithium-ion batteries. Journal of Materials Research, 2018, 33, 1553-1564.	2.6	11
61	Fabrication of Si Nanoparticles@Conductive Carbon Framework@Polymer Composite as Highâ€Arealâ€Capacity Anode of Lithiumâ€Ion Batteries. ChemElectroChem, 2018, 5, 3258-3265.	3.4	20
62	TiO2â€“MoS2 hybrid nano composites with 3D network architecture as binder-free flexible electrodes for lithium ion batteries. Journal of Materials Science: Materials in Electronics, 2017, 28, 9519-9527.	2.2	21
63	Mn-Based Cathode with Synergetic Layered-Tunnel Hybrid Structures and Their Enhanced Electrochemical Performance in Sodium Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 21267-21275.	8.0	60
64	Layered/Spinel Heterostructured and Hierarchical Micro/Nanostructured Li-Rich Cathode Materials with Enhanced Electrochemical Properties for Li-Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 21065-21070.	8.0	79
65	Graphitized porous carbon materials with high sulfur loading for lithium-sulfur batteries. Nano Energy, 2017, 32, 503-510.	16.0	118
66	Water Soluble Binder, an Electrochemical Performance Booster for Electrode Materials with High Energy Density. Advanced Energy Materials, 2017, 7, 1701185.	19.5	248
67	Origin of Structural Evolution in Capacity Degradation for Overcharged NMC622 via Operando Coupled Investigation. ACS Applied Materials & Interfaces, 2017, 9, 24731-24742.	8.0	78
68	In Situ Multitechnical Investigation into Capacity Fading of High-Voltage LiNi_{0.5}Co_{0.2}Mn_{0.3}O₂. ACS Applied Materials & Interfaces, 2016, 8, 35323-35335.	8.0	63
69	Improving the Electrochemical Performance of Li_{1.14}Ni_{0.18}Mn_{0.62}O₂ by Modulating Structure Defects via a Molten Salt Method. ChemElectroChem, 2016, 3, 98-104.	3.4	13
70	Suppressing the voltage-fading of layered lithium-rich cathode materials via an aqueous binder for Li-ion batteries. Chemical Communications, 2016, 52, 4683-4686.	4.1	85
71	Achieving high capacity retention in lithium-sulfur batteries with an aqueous binder. Electrochemistry Communications, 2016, 72, 79-82.	4.7	43
72	New Insights into the Structure Changes and Interface Properties of Li₃VO₄ Anode for Lithium-Ion Batteries during the Initial Cycle by in-Situ Techniques. ACS Applied Materials & Interfaces, 2016, 8, 23739-23745.	8.0	61

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73	Synthesis of a novel tunnel Na_{0.5}K_{0.1}MnO₂ composite as a cathode for sodium ion batteries. RSC Advances, 2016, 6, 54404-54409.	3.6	20
74	Layered Li_{1.3}Mn_{0.58}Ni_{0.12}Co_{0.11}O_{2+Î´} Cathode Material for Lithiumâ€ion Batteries with High Reversible Capacity. ChemElectroChem, 2016, 3, 2027-2030.	3.4	9
75	Structure Design and Performance Tuning of Nanomaterials for Electrochemical Energy Conversion and Storage. Accounts of Chemical Research, 2016, 49, 2569-2577.	15.6	131
76	A Synergistic Effect in a Composite Cathode Consisting of Spinel and Layered Structures To Increase the Electrochemical Performance for Li-Ion Batteries. Journal of Physical Chemistry C, 2016, 120, 25647-25656.	3.1	13
77	Layered/spinel heterostructured Li-rich materials synthesized by a one-step solvothermal strategy with enhanced electrochemical performance for Li-ion batteries. Journal of Materials Chemistry A, 2016, 4, 257-263.	10.3	111
78	Effect of synthetic routes on the rate performance of Li-rich layered Li_{1.2}Mn_{0.56}Ni_{0.12}Co_{0.12}O₂. Journal of Materials Chemistry A, 2015, 3, 5197-5203.	10.3	65
79	Nanoâ€Microstructured Si/C Composite with High Tap Density as an Anode Material for Lithiumâ€ion Batteries. ChemElectroChem, 2015, 2, 611-616.	3.4	42
80	Superiority of the bi-phasic mixture of a tin-based alloy nanocomposite as the anode for lithium ion batteries. Journal of Materials Chemistry A, 2015, 3, 3794-3800.	10.3	43
81	A Robust Ionâ€Conductive Biopolymer as a Binder for Si Anodes of Lithiumâ€ion Batteries. Advanced Functional Materials, 2015, 25, 3599-3605.	14.9	329
82	New insight into structural transformation in Li-rich layered oxide during the initial charging. Journal of Materials Chemistry A, 2015, 3, 12220-12229.	10.3	57
83	Magnetic Behaviors of Mg- and Zn-Doped Fe₃O₄ Nanoparticles Estimated in Terms of Crystal Domain Size, Dielectric Response, and Application of Fe₃O₄/Carbon Nanotube Composites to Anodes for Lithium Ion Batteries. Journal of Physical Chemistry C, 2015, 119, 26128-26142.	3.1	29
84	Tuning the structure and property of nanostructured cathode materials of lithium ion and lithium sulfur batteries. Journal of Materials Chemistry A, 2014, 2, 19941-19962.	10.3	56
85	l-Histidine-assisted template-free hydrothermal synthesis of Î±-Fe2O3 porous multi-shelled hollow spheres with enhanced lithium storage properties. Journal of Materials Chemistry A, 2014, 2, 12361-12367.	10.3	32
86	Facile Synthesis of The Li-Rich Layered Oxide Li_{1.23}Ni_{0.09}Co_{0.12}Mn_{0.56}O₂ with Superior Lithium Storage Performance and New Insights into Structural Transformation of the Layered Oxide Material during Chargeâ€“Discharge Cycle: In Situ XRD Characterization. ACS Applied Materials & Interfaces, 2014, 6, 5516-5524.	8.0	96
87	Kinetics and Structural Changes of Li-Rich Layered Oxide 0.5Li₂MnO₃Â·0.5LiNi_{0.292}Co_{0.375}Mn_{0.333}O₂ Material Investigated by a Novel Technique Combining in Situ XRD and a Multipotential Step. ACS Applied Materials & Interfaces, 2014, 6, 13271-13279.	8.0	59
88	A hierarchical micro/nanostructured 0.5Li2MnO3Â·0.5LiMn0.4Ni0.3Co0.3O2 material synthesized by solvothermal route as high rate cathode of lithium ion battery. Electrochemistry Communications, 2014, 44, 54-58.	4.7	46
89	Investigation of interfacial processes in graphite thin film anodes of lithium-ion batteries by both in situ and ex situ infrared spectroscopy. Science China Chemistry, 2013, 56, 992-996.	8.2	16
90	Synthesis of single crystalline hexagonal nanobricks of LiNi1/3Co1/3Mn1/3O2 with high percentage of exposed {010} active facets as high rate performance cathode material for lithium-ion battery. Journal of Materials Chemistry A, 2013, 1, 3860.	10.3	195

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91	Facile Synthesis of Hierarchical Micro/Nanostructured MnO Material and Its Excellent Lithium Storage Property and High Performance as Anode in a MnO/LiNi_{0.5}Mn_{1.5}O_{4-Î´} Lithium Ion Battery. ACS Applied Materials & Interfaces, 2013, 5, 6316-6323.	8.0	91
92	Three-dimensional nanoarchitecture of Snâ€“Sbâ€“Co alloy as an anode of lithium-ion batteries with excellent lithium storage performance. Journal of Materials Chemistry, 2012, 22, 17511.	6.7	70
93	Facile synthesis of hollow Cu2Sb@C coreâ€“shell nanoparticles as a superior anode material for lithium ion batteries. Journal of Materials Chemistry, 2011, 21, 18517.	6.7	32
94	XPS and ToF-SIMS Study of Electrode Processes on Snâˆ’Ni Alloy Anodes for Li-Ion Batteries. Journal of Physical Chemistry C, 2011, 115, 7012-7018.	3.1	89
95	XPS and ToF-SIMS study of Snâ€“Co alloy thin films as anode for lithium ion battery. Journal of Power Sources, 2010, 195, 8251-8257.	7.8	111
96	Low temperature synthesis of LiNiO2@LiCoO2 as cathode materials for lithium ion batteries. Journal of Solid State Electrochemistry, 2010, 14, 1117-1124.	2.5	12
97	Lithiation/delithiation performance of Snâ€“Co alloy anode using rough Cu foil as current collector. Journal of Solid State Electrochemistry, 2009, 13, 1849-1858.	2.5	17
98	One-step electrodeposition synthesis and electrochemical properties of Cu6Sn5 alloy anodes for lithium-ion batteries. Journal of Applied Electrochemistry, 2009, 39, 1323-1330.	2.9	23
99	Studies of the Interfacial Properties of an Electroplated Sn Thin Film Electrode/Electrolyte Using in Situ MFTIRS and EQCM. Langmuir, 2007, 23, 13174-13180.	3.5	79
100	LiCoO2 electrode/electrolyte interface of Li-ion batteries investigated by electrochemical impedance spectroscopy. Science in China Series B: Chemistry, 2007, 50, 776-783.	0.8	22
101	An electrochemical impedance spectroscopic study of the electronic and ionic transport properties of LiCoO2 cathode. Science Bulletin, 2007, 52, 1187-1195.	1.7	21
102	Studies of the first lithiation of graphite materials by electrochemical impedance spectroscopy. Science Bulletin, 2006, 51, 1055-1059.	1.7	15
103	Electrodeposition and Properties of an Amorphous Ni-W-B Alloy before and after Heat Treatment. Chinese Journal of Chemistry, 2006, 24, 114-118.	4.9	9
104	Electrodeposition, Structure and Corrosion Resistance of Nanocrystalline Niâ€“W Alloy. Chinese Journal of Chemistry, 2004, 22, 228-231.	4.9	14
105	Influence of Chloride and PEG on Electrochemical Nucleation of Copper. Transactions of the Institute of Metal Finishing, 2002, 80, 183-186.	1.3	8
106	Studies of Structure and Electrocatalytic Hydrogen Evolution on Electrodeposited Nanocrystalline Ni-Mo Alloy Electrodes. Transactions of the Institute of Metal Finishing, 2001, 79, 136-139.	1.3	14
107	Study on Some Properties of the Electrolyte Solution in the Electrodeposition of Palladium. Transactions of the Institute of Metal Finishing, 1999, 77, 103-105.	1.3	2
108	A Study on the Effect of Bath Composition on the Internal Stress of a Palladium Electrodeposit. Transactions of the Institute of Metal Finishing, 1998, 76, 238-240.	1.3	4

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109	Reducing Safety Hazards by Optimizing the Morphology of the LiNi_{0.5}Co_{0.25}Mn_{0.25}O₂ Cathode Material under Abuse Conditions. ACS Applied Energy Materials, 0, , .	5.1	1