Thermal explosion hazards on 18650 lithium ion batteri

Journal of Hazardous Materials 192, 99-107 DOI: 10.1016/j.jhazmat.2011.04.097

Citation Report

#	Article	IF	CITATIONS
1	Are lithium ion cells Intrinsically Safe?. , 2012, , .		1
2	Thermal runaway features of 18650 lithium-ion batteries for LiFePO4 cathode material by DSC and VSP2. Journal of Thermal Analysis and Calorimetry, 2012, 109, 1297-1302.	2.0	66
3	Thermal runaway potential of LiCoO2 and Li(Ni1/3Co1/3Mn1/3)O2 batteries determined with adiabatic calorimetry methodology. Applied Energy, 2012, 100, 127-131.	5.1	181
4	Thermal hazard evaluations of 18650 lithium-ion batteries by an adiabatic calorimeter. Journal of Thermal Analysis and Calorimetry, 2013, 114, 1083-1088.	2.0	56
5	Are Lithium Ion Cells Intrinsically Safe?. IEEE Transactions on Industry Applications, 2013, 49, 2451-2460.	3.3	36
6	Abuse by External Heating, Overcharge and Short Circuiting of Commercial Lithium-Ion Battery Cells. Journal of the Electrochemical Society, 2014, 161, A1611-A1617.	1.3	228
7	In Situ Measurement of Radial Temperature Distributions in Cylindrical Li-Ion Cells. Journal of the Electrochemical Society, 2014, 161, A1499-A1507.	1.3	161
8	Thermal-runaway experiments on consumer Li-ion batteries with metal-oxide and olivin-type cathodes. RSC Advances, 2014, 4, 3633-3642.	1.7	523
9	Impact of Tab Location on Large Format Lithium-Ion Pouch Cell Based on Fully Coupled Tree-Dimensional Electrochemical-Thermal Modeling. Electrochimica Acta, 2014, 147, 319-329.	2.6	111
10	Further study of the intrinsic safety of internally shorted lithium and lithium-ion cells within methane-air. Journal of Loss Prevention in the Process Industries, 2014, 32, 165-173.	1.7	22
11	Thermal behaviour analysis of lithium-ion battery at elevated temperature using deconvolution method. Applied Energy, 2014, 129, 261-273.	5.1	179
12	Experimental and Numerical Characterization of an Electrically Propelled Vehicles Battery Casing Including Battery Module. Journal of Thermal Science and Engineering Applications, 2014, 6, .	0.8	3
13	The combustion behavior of large scale lithium titanate battery. Scientific Reports, 2015, 5, 7788.	1.6	104
14	Powerful curved piezoelectric generator for wearable applications. Nano Energy, 2015, 13, 174-181.	8.2	159
15	Thermal runaway of commercial 18650 Li-ion batteries with LFP and NCA cathodes – impact of state of charge and overcharge. RSC Advances, 2015, 5, 57171-57186.	1.7	316
16	Thermal runaway propagation model for designing a safer battery pack with 25 Ah LiNi Co Mn O2 large format lithium ion battery. Applied Energy, 2015, 154, 74-91.	5.1	293
17	Hazard Characterizations of Li-Ion Batteries: Thermal Runaway Evaluation by Calorimetry Methodology. Green Energy and Technology, 2015, , 419-454.	0.4	4
18	Effects of thermal hazard on 18650 lithium-ion battery under different states of charge. Journal of Thermal Analysis and Calorimetry, 2015, 121, 525-531.	2.0	37

ATION RED

#	Article	IF	CITATIONS
19	Thermal stability evaluation of lithium-ion polymer batteries. Journal of Thermal Analysis and Calorimetry, 2015, 122, 1099-1105.	2.0	6
20	Evaluation of Batteries for Safe Air Transport. Energies, 2016, 9, 340.	1.6	13
21	Characterization and modeling of the thermal mechanics of lithium-ion battery cells. Applied Energy, 2016, 178, 633-646.	5.1	41
22	Thermal response of lithium-ion battery during charging and discharging under adiabatic conditions. Journal of Thermal Analysis and Calorimetry, 2016, 124, 417-428.	2.0	41
23	Thermal Runaway in Lithium-Ion Batteries: Incidents, Kinetics of the Runaway and Assessment of Factors Affecting Its Initiation. Journal of the Electrochemical Society, 2016, 163, A2691-A2701.	1.3	39
24	Electrochemical heat flow calorimeter. Russian Journal of Electrochemistry, 2016, 52, 449-455.	0.3	3
25	Cellular phone collateral damage: A review of burns associated with lithium battery powered mobile devices. Burns, 2016, 42, e61-e64.	1.1	45
26	Coupled effect of strain rate and solvent on dynamic mechanical behaviors of separators in lithium ion batteries. Materials and Design, 2016, 95, 319-328.	3.3	105
27	The Efficiency of Heptafluoropropane Fire Extinguishing Agent on Suppressing the Lithium Titanate Battery Fire. Fire Technology, 2016, 52, 387-396.	1.5	67
28	Investigation of effects of design parameters on the internal short-circuit in cylindrical lithium-ion batteries. RSC Advances, 2017, 7, 14360-14371.	1.7	29
29	Multiphysics computational framework for cylindrical lithium-ion batteries under mechanical abusive loading. Electrochimica Acta, 2017, 256, 172-184.	2.6	94
30	Towards Understanding Heat Generation Characteristics of Li-Ion Batteries by Calorimetry, Impedance, and Potentiometry Studies. Journal of the Electrochemical Society, 2017, 164, A2794-A2800.	1.3	39
31	A pseudo 3D electrochemical-thermal modeling and analysis of a lithium-ion battery for electric vehicle thermal management applications. Applied Thermal Engineering, 2017, 125, 904-918.	3.0	88
32	Study of the fire hazards of lithium-ion batteries at different pressures. Applied Thermal Engineering, 2017, 125, 1061-1074.	3.0	107
33	Thermal hazard assessment for three C rates for a Li-polymer battery by using vent sizing package 2. Journal of Thermal Analysis and Calorimetry, 2017, 127, 809-817.	2.0	17
34	Electronic cigarette explosion associated with extensive intraoral injuries. Dental Traumatology, 2017, 33, 149-152.	0.8	32
35	High-Pressure Injection Injury Caused by Electronic Cigarette Explosion. JBJS Case Connector, 2017, 7, e36-e36.	0.1	7
36	Experimental Analysis of Thermal Runaway in 18650 Cylindrical Li-Ion Cells Using an Accelerating Rate Calorimeter, Batteries, 2017, 3, 14,	2.1	109

# 37	ARTICLE Exploding E-Cigarettes: A Battery Safety Issue. IEEE Access, 2018, 6, 21442-21466.	IF 2.6	CITATIONS 38
38	Gas explosions and thermal runaways during external heating abuse of commercial lithium-ion graphite-LiCoO2 cells at different levels of ageing. Journal of Power Sources, 2018, 373, 220-231.	4.0	153
39	Lithium ion batteries (NMC/graphite) cycling at 80°C: Different electrolytes and related degradation mechanism. Journal of Power Sources, 2018, 373, 172-183.	4.0	59
40	Risk assessment of lithium-ion battery explosion: chemical leakages. Journal of Toxicology and Environmental Health - Part B: Critical Reviews, 2018, 21, 370-381.	2.9	25
41	Surface cleaning effect of NCM powder and improvement of lithium ion battery on the thermal stability and life cycle employing dielectric barrier discharge technique. Current Applied Physics, 2018, 18, 961-967.	1.1	9
42	Characterization of behaviour and hazards of fire and deflagration for high-energy Li-ion cells by over-heating. Journal of Power Sources, 2018, 398, 55-66.	4.0	82
43	Mechanical characterization and modeling for anodes and cathodes in lithium-ion batteries. Journal of Power Sources, 2018, 392, 265-273.	4.0	85
44	An Experimental Setup with Alternating Current Capability for Evaluating Large Lithium-Ion Battery Cells. Batteries, 2018, 4, 38.	2.1	13
45	Simultaneous measurement of multiple thermal hazards associated with a failure of prismatic lithium ion battery. Proceedings of the Combustion Institute, 2019, 37, 4173-4180.	2.4	64
46	Research of mobile power pack security verification based on scenario simulation. Cluster Computing, 2019, 22, 8757-8767.	3.5	0
47	Hazardous characteristics of charge and discharge of lithium-ion batteries under adiabatic environment and hot environment. International Journal of Heat and Mass Transfer, 2019, 141, 419-431.	2.5	48
48	A Review on the Thermal Hazards of the Lithium-Ion Battery and the Corresponding Countermeasures. Applied Sciences (Switzerland), 2019, 9, 2483.	1.3	161
49	Prediction of Lithium-ion Battery Thermal Runaway Propagation for Large Scale Applications Fire Hazard Quantification. Processes, 2019, 7, 703.	1.3	13
50	Parameter identification of an electrochemical lithium-ion battery model with convolutional neural network. IFAC-PapersOnLine, 2019, 52, 129-134.	0.5	30
51	Experimental study on thermal runaway risk of 18650 lithium ion battery under side-heating condition. Journal of Loss Prevention in the Process Industries, 2019, 61, 122-129.	1.7	62
52	Thermal runaway and fire behaviors of large-scale lithium ion batteries with different heating methods. Journal of Hazardous Materials, 2019, 379, 120730.	6.5	113
53	Review—Understanding the Thermal Runaway Behavior of Li-Ion Batteries through Experimental Techniques. Journal of the Electrochemical Society, 2019, 166, A2165-A2193.	1.3	59
54	A review of lithium ion battery failure mechanisms and fire prevention strategies. Progress in Energy and Combustion Science, 2019, 73, 95-131.	15.8	832

#	Article	IF	CITATIONS
55	Investigating the thermal runaway mechanisms of lithium-ion batteries based on thermal analysis database. Applied Energy, 2019, 246, 53-64.	5.1	358
56	A Multiphysics Computational Framework for Cylindrical Battery Behavior upon Mechanical Loading Based on LS-DYNA. Journal of the Electrochemical Society, 2019, 166, A1160-A1169.	1.3	36
57	Experimental investigation on the thermal runaway and its propagation in the large format battery module with Li(Ni1/3Co1/3Mn1/3)O2 as cathode. Journal of Hazardous Materials, 2019, 375, 241-254.	6.5	169
58	Fire behaviors study on 18650 batteries pack using a cone-calorimeter. Journal of Thermal Analysis and Calorimetry, 2019, 136, 2281-2294.	2.0	21
59	Evaluating the thermal failure risk of large-format lithium-ion batteries using a cone calorimeter. Journal of Fire Sciences, 2019, 37, 81-95.	0.9	24
60	Lithium-Secondary Cell. , 2019, , 143-266.		0
61	Aging mechanisms and thermal stability of aged commercial 18650 lithium ion battery induced by slight overcharging cycling. Journal of Power Sources, 2020, 445, 227263.	4.0	129
62	A comprehensive investigation on the thermal and toxic hazards of large format lithium-ion batteries with LiFePO4 cathode. Journal of Hazardous Materials, 2020, 381, 120916.	6.5	88
63	A new exploration of the fire behaviors of large format lithium ion battery. Journal of Thermal Analysis and Calorimetry, 2020, 139, 1243-1254.	2.0	15
64	Building Safe Lithium-Ion Batteries for Electric Vehicles: A Review. Electrochemical Energy Reviews, 2020, 3, 1-42.	13.1	448
65	Self-heating reaction and thermal runaway criticality of the lithium ion battery. International Journal of Heat and Mass Transfer, 2020, 149, 119178.	2.5	91
66	Experimental study on the synergistic effect of gas extinguishing agents and water mist on suppressing lithium-ion battery fires. Journal of Energy Storage, 2020, 32, 101801.	3.9	48
67	Design of an Optimized Thermal Management System for Li-Ion Batteries under Different Discharging Conditions. Energies, 2020, 13, 5695.	1.6	57
68	A Detailed Finite Element Model of Internal Short Circuit and Venting During Thermal Runaway in a 32650 Lithium-Ion Battery. Fire Technology, 2020, 56, 2525-2544.	1.5	13
69	Investigation of impact pressure during thermal runaway of lithium ion battery in a semi-closed space. Applied Thermal Engineering, 2020, 175, 115429.	3.0	20
70	Identification and characteristic analysis of powder ejected from a lithium ion battery during thermal runaway at elevated temperatures. Journal of Hazardous Materials, 2020, 400, 123169.	6.5	57
71	Thermal explosion energy evaluated by thermokinetic analysis for series- and parallel-circuit NMC lithium battery modules. Chemical Engineering Research and Design, 2020, 142, 295-307.	2.7	28
72	Experimental study on the dynamic behavior of prismatic lithium-ion battery upon repeated impact. Engineering Failure Analysis, 2020, 115, 104667.	1.8	30

#	Article	IF	CITATIONS
73	Criticality of incorporating explicit inâ€situ measurement of temperatureâ€dependent heat generation for accurate design of thermal management system for Liâ€ion battery pack. International Journal of Energy Research, 2020, 44, 6023-6034.	2.2	4
74	A comparative analysis on thermal runaway behavior of Li (Ni Co Mn) O2 battery with different nickel contents at cell and module level. Journal of Hazardous Materials, 2020, 393, 122361.	6.5	83
75	Assessment on thermal hazards of reactive chemicals in industry: State of the Art and perspectives. Progress in Energy and Combustion Science, 2020, 78, 100832.	15.8	46
76	Thermal runaway hazards investigation on 18650 lithium-ion battery using extended volume accelerating rate calorimeter. Journal of Energy Storage, 2020, 28, 101232.	3.9	86
77	Capacity fading and thermal stability of LiNi Co Mn O2/graphite battery after overcharging. Journal of Energy Storage, 2020, 29, 101397.	3.9	28
78	State of health prediction model based on internal resistance. International Journal of Energy Research, 2020, 44, 6502-6510.	2.2	32
79	Experimental investigation of water spray on suppressing lithium-ion battery fires. Fire Safety Journal, 2021, 120, 103117.	1.4	42
80	Precise in-situ and ex-situ study on thermal behavior of LiNi1/3Co1/3Mn1/3O2/graphite coin cell: From part to the whole cell. Journal of Energy Chemistry, 2021, 54, 332-341.	7.1	27
81	Evaluate the deflagration potential for commercial cylinder Li-ion cells under adiabatic confinement testing. Journal of Thermal Analysis and Calorimetry, 2021, 143, 661-670.	2.0	5
82	Transient process simulation of a thermal explosion at a propylene purification unit using calorimetric techniques. Chemical Engineering Journal, 2021, 413, 127505.	6.6	3
83	Experimental and modeling analysis of jet flow and fire dynamics of 18650-type lithium-ion battery. Applied Energy, 2021, 281, 116054.	5.1	66
84	Blasting pressure for LiNi1/3Mn1/3Co1/3O2 battery evaluated by thermally adiabatic testing. Journal of Thermal Analysis and Calorimetry, 2021, 144, 335-342.	2.0	2
85	Maxillofacial injury related to an exploding e-cigarette. BMJ Case Reports, 2021, 14, e239677.	0.2	2
86	Electrochemical-thermal modelling of commercially available cylindrical lithium-ion cells for the tropical climate of India. Materials Today: Proceedings, 2021, 47, 647-651.	0.9	3
87	A piezoelectric poly(vinylidene fluoride) tube featuring highly-sensitive and isotropic piezoelectric output for compression. RSC Advances, 2021, 11, 1182-1186.	1.7	1
88	A new method to explore thermal and venting behavior of lithium-ion battery thermal runaway. Journal of Power Sources, 2021, 486, 229357.	4.0	40
89	Carboxymethyl cellulose plasticized polymer application as bio-material in solid-state hydrogen ionic cell. International Journal of Hydrogen Energy, 2021, 46, 8030-8039.	3.8	14
90	Experimental Study on Pyrolysis Kinetics and Thermal Stability of Li (Ni _{1/3} Co _{1/3} Mn _{1/3})O ₂ Cathode Material at Different State of Charge. Journal of the Electrochemical Society, 2021, 168, 020522.	1.3	3

	Cr	tation Report	
#	Article	IF	CITATIONS
91	Thermal runaway features of lithium sulfur pouch cells at various states of charge evaluated by extended volume-accelerating rate calorimetry. Journal of Power Sources, 2021, 489, 229503.	4.0	27
92	Inhibitory effect of water mist containing composite additives on thermally induced jet fire in lithium-ion batteries. Journal of Thermal Analysis and Calorimetry, 2022, 147, 2171-2185.	2.0	13
93	Investigating the Role of Energy Density in Thermal Runaway of Lithium-Ion Batteries with Accelerating Rate Calorimetry. Journal of the Electrochemical Society, 2021, 168, 060516.	1.3	19
94	Rupture and combustion characteristics of lithium-ion battery under overcharge. Journal of Energy Storage, 2021, 38, 102571.	3.9	19
95	Experimental Study on Thermal Runaway Process of 18650 Lithium-Ion Battery under Different Discharge Currents. Materials, 2021, 14, 4740.	1.3	6
96	The Hazards Analysis of Nickel-Rich Lithium-Ion Battery Thermal Runaway under Different States of Charge. Electronics (Switzerland), 2021, 10, 2376.	1.8	6
97	Thermal Runaway: Causes and Consequences on Cell Level. SpringerBriefs in Applied Sciences and Technology, 2014, , 37-51.	0.2	2
98	Lithium-Ion Batteries as Ignition Sources in Waste Treatment Processes—A Semi-Quantitate Risk Analysis and Assessment of Battery-Caused Waste Fires. Processes, 2021, 9, 49.	1.3	13
99	Applied method to model the thermal runaway of lithium-ion batteries. , 2021, , .		5
100	Investigation on Thermal Runaway of Li-Ion Cells Based on LiNi1/3Mn1/3Co1/3O2. Journal of Electrochemical Energy Conversion and Storage, 2021, 18, .	1.1	4
101	Discharge Rate Capability in Aged Li-Ion Batteries. Journal of the Electrochemical Society, 2020, 167, 140519.	1.3	5
103	Extensive burn injury caused by fundamental electronic cigarette design flaw. Annals of Burns and Fire Disasters, 2016, 29, 231-233.	0.3	6
104	A multi-factor evaluation method for the thermal runaway risk of lithium-ion batteries. Journal of Energy Storage, 2022, 45, 103767.	3.9	17
105	Experimental investigation on intermittent spray cooling and toxic hazards of lithium-ion battery thermal runaway. Energy Conversion and Management, 2022, 252, 115091.	4.4	36
106	The effect of cell geometry and trigger method on the risks associated with thermal runaway of lithium-ion batteries. Journal of Power Sources, 2022, 524, 230645.	4.0	28
107	Electric Scooter Battery Detonation: A Case Series And Review Of Literature. Annals of Burns and Fire Disasters, 2021, 34, 264-276.	0.3	0
108	Research on Mechanical Simulation Model and Working Safety Boundary of Large-Capacity Prismatic Lithium-Ion Battery Based on Experiment. Journal of Electrochemical Energy Conversion and Storage, 2022, 19, .	1.1	3
109	Suppression behavior of water mist containing compound additives on lithium-ion batteries fire. Chemical Engineering Research and Design, 2022, 161, 476-487.	2.7	32

#	Article	IF	CITATIONS
110	Characterizing and predicting 21700 NMC lithium-ion battery thermal runaway induced by nail penetration. Applied Thermal Engineering, 2022, 209, 118278.	3.0	15
111	Analysis of gas release during the process of thermal runaway of lithium-ion batteries with three different cathode materials. Journal of Energy Storage, 2022, 50, 104302.	3.9	34
112	Investigation on thermal runaway of 18,650 lithium ion battery under thermal abuse coupled with charging. Journal of Energy Storage, 2022, 51, 104482.	3.9	22
113	Research progress on fire protection technology of containerized Li-ion battery energy storage system. , 2021, , .		2
114	Heat transfer effects on accelerating rate calorimetry of the thermal runaway of Lithium-ion batteries. Chemical Engineering Research and Design, 2022, 162, 684-693.	2.7	23
115	Comparative study on aging and thermal runaway of commercial LiFePO4/graphite battery undergoing slight overcharge cycling. Journal of Energy Storage, 2022, 50, 104691.	3.9	5
116	Thermal Runaway Characteristics of 18650 NCM Lithium-ion Batteries under the Different Initial Pressures. Electrochemistry, 2022, 90, 087004-087004.	0.6	5
117	Particle emission of Nano-enhanced Li-ion batteries during combustion and pyrolysis treatments. Air Quality, Atmosphere and Health, 0, , .	1.5	0
118	A Review of Fire-Extinguishing Agents and Fire Suppression Strategies for Lithium-Ion Batteries Fire. Fire Technology, 0, , .	1.5	9
119	Experimental investigation on the cooling effectiveness of an oil-immersed battery cooling system. Journal of Thermal Analysis and Calorimetry, 2022, 147, 14841-14857.	2.0	8
120	Critical conditions for the thermal runaway propagation of lithium-ion batteries in air and argon environments. Journal of Thermal Analysis and Calorimetry, 2022, 147, 13699-13710.	2.0	4
121	Experimental Study on the Efficiency of Dodecafluoro-2-Methylpentan-3-One on Suppressing Large-Scale Battery Module Fire. Fire Technology, 2023, 59, 1247-1267.	1.5	3
122	Numerical Modeling of Electro-Thermal Behaviour of a Typical Lithium-Ion Cell and Pack Level Using NewmanP2D Approach. , 0, , .		0
123	Thermal runaway analysis and model of nickel-rich lithium-ion batteries in different overcharging states. , 2022, , .		1
124	Effect of relative humidity on the emission height and reaction force of single-tube fireworks. Journal of Thermal Analysis and Calorimetry, 2023, 148, 4997-5007.	2.0	1
125	Simulation Analysis of Thermal Runaway Characteristics of Lithium-Ion Batteries. , 2023, , .		0