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Fire and Smoke Characterization and Fire Suppression of Lithium-ion Cells, Modules and Batteries

Lithium-ion cells, modules and batteries of two different cathode chemistries were taken into thermal runaway and the fire and smoke resulting from this was characterized. The composition of the gases in the smoke was analyzed to understand the combustibility and the toxicity. In a parallel effort, fire suppression studies were carried out on Lithium-ion modules and batteries of two different cathode chemistries that were taken into thermal runaway using different fire suppressants. Results of the fire and smoke characterization as well as the results of the fire suppression study will be presented.

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