



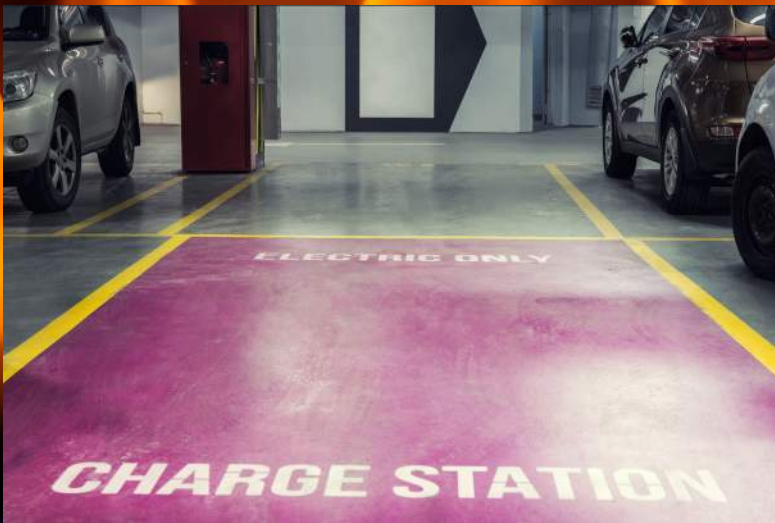
The Society of Fire Protection Engineers (SFPE) Denmark Chapter is proud to present:

A Scoping Review of Fixed Fire Suppression System for Li-ion Battery

SFPE event is
FREE
of charge

Speaker: Linfan Cai
Date: 6 July 2023 (Thursday)
Hour: 15.30 - 16.30 pm
Location: Teams Link upon registration

To register, please RSVP lucia.ortega@danfoss.com



Synopsis A scoping review of fixed fire suppression systems and extinguishing agents for lithium-ion battery (LIB) fires will be presented. The review categorises different research experiments into cell-level, module-level, electric vehicle (EV) pack-level, battery energy storage system (BESS) rack-level and warehouse storage experiments, according to LIB configurations. More than twenty (20) different extinguishing agents (water-based, gas-based, powder-based and novel combinations

of agents) and two (2) dispersion modes (total flooding and direct internal injection) are evaluated systematically. The advantages and drawbacks of each type of extinguishing agent are compared and discussed based on dispersion modes and LIB configurations. Suggestions on how to apply the findings from the small-scale experiments onto large-scale experiments and key findings of potential applications of extinguishing agents in EV and BESS will also be briefly discussed.

Bio Linfan Cai graduated in 2023 from the International Master of Science in Fire Safety Engineering (IMFSE). Linfan performed his master's thesis at Lund University. He is a registered Mechanical Engineer in Singapore.

SFPE is a prominent society in the field of fire protection and fire engineering with more than 120 chapters worldwide, dedicated to defining, developing, and advancing the use of engineering best practices, expanding the scientific and technical knowledge, and educating the global fire safety community.



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