

Batteries and energy storage systems

Buildings & Industrial

Fire safety consultancy and design

Fire safety concepts

- for the conversion of an existing building to a reprocessing and recycling facility for Li-ion batteries (Nickelhütte Aue)
- for a new Li-ion batteries dismantling/disassembly facility (Nickelhütte Aue)

Expert statement

- about fire hazard and necessary measures for operation of a Li-Ion battery exchange station (Swobbee)

Smoke and fire tests

For the approval of an specific application of a fire-fighting systems

- Fire tests for the protection of energy storage containers with Li-ion-batteries
- Fire tests for the protection of a test cells for electric vehicles with Li-ion-batteries
- Fire tests for the protection of a parking garage with an aluminium structure and parking spaces for electric vehicles
- Investigations on gas and temperature development during thermal runaways of lithium-ion batteries from the automobile industry

Misc

- Determination of the effectiveness of extinguishing against for the fire protection of Li-ion-batteries
- Determination of detection system concerning an earliest fire detection of fires with Li-ion-batteries
- Fire resistance testing of Li-ion-batteries for the car industry

Simulations & calculations

- CFD simulations for the preparation of ventilation concept considering the smoke distribution during fires with Li-ion-batteries

Seminars/Webinars

- Development and conduct of VDI-seminars on „Fire protection of Li-Ion Batteries“

Rail & Rolling Stock

Smoke and fire tests

- Determination of fire spread and influence of water mist system of burning E-bikes with Li-ion batteries in various applications

Seminars/Webinars

- About the determination of a fire design curve (heat release rate, HRR) of bicycles with Li-ion batteries by fire tests with and without water mist system

Research Projects

- SUVEREN²Use – Extinguishing systems and emergency concepts for the safe handling of battery fires over the complete product life cycle.
- Determination of heat release rate (HRR) and other parameters during the fire tests with Li-ion-batteries (Research project SUVEREN <https://www.suveren-nec.info/>)

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