Heat transfer during battery pack fire test modeled in Q-Bat

This repository shows how to model heat transfer in a generic battery pack during fire test in Q-Bat from QuickerSim. The model consists of 16 Li-ion cells connected in 4s4p circuit, bus bars, connectors, holders and casing and is connected to a reduced-order model (ROM) to model heat transfer in 3D geometry.

The model will simulate battery’s behavior during fire test, which consists of 3 phases:

* 70 s of direct contact with a fire source
* 60 s of indirect contact with a fire source
* up to 3 hours of cooling to the ambient temperature

⬇️ Please use this link instead of the download button: Podać link do repo ⬇️

Run fire\_test\_demo.m or fire\_test\_demo\_ls.mlx to get started

* Please visit the [Q-Bat](https://www.mathworks.com/products/connections/product_detail/quickersim-q-bat.html) and [QuickerSim](https://emobility.quickersim.com/" \t "_blank) page to learn more about modeling heat transfer in 3-D systems.

**Simulation Model**

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**Simulation Results**

**Chart

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Cite As

QuickerSim (2022). Power tool’s battery pack model with Q-Bat (link do repo), GitHub. Retrieved data automatyczna.