



Master Thesis (Masterarbeit)

Topic: Experimental and model-based investigation of solid-state diffusion in Sodium-ion cells

Elektrische Energiespeichersysteme, Institut für Photovoltaik

12/2023 – 05/2024 (On-going)

- Comparing a novel Galvanostatic Intermittent Titration Technique (GITT) that includes relaxation phases to improve solid-state diffusion analysis, against conventional methods.
- Performing experimental characterization on Na-ion full and half coin cells and developing a PyBaMM-based half-cell model using grid search and genetic algorithm-based optimization.

Skills: Python, Optimization Algorithms, Lithium-ion Batteries, Sodium-ion Batteries, Electrical and Electrochemical Characterization Techniques (GITT, EIS), Battery Modelling