

Research Internship, Seminar Work or Thesis Project „EmboPlate“ Electrochemical Measurement of Redox Flow Batteries

PERIOD: FLEXIBLE
START: IMMEDIATELY

MOTIVATION

In the context of the energy transition, redox flow batteries have been the focus of research for several years as electrical energy storage devices with high performance and capacity. Unlike conventional secondary cells, this type of accumulator uses liquid electrolytes, which are pumped through the electrochemical cells. Therefore, when designing such systems, pressure loss and flow profile in the cells, among other things, must be considered in order to keep power density and auxiliary energy requirements in balance.

In the EmboPlate project, the core components of redox flow batteries, mono- and bipolar plates, are therefore being further developed. The aim here is to simplify the manufacture of these components while increasing the efficiency of the overall system. For this purpose the materials used, flow concepts and the interaction with the electrodes and current collectors are examined.

With this job posting we are looking for support for the existing project team with the upcoming work in the laboratory.

ASSIGNMENT OF TASKS

- Training with the existing test stands, their hardware and software
- Installation and removal of cells with different configurations on mono- and bipolar plates, implementation of any modifications necessary for measurements
- Evaluation and interpretation of the recorded data
- Documentation of the measurement data and findings obtained

YOUR PROFILE:

- You are a student (f / m / d) at a university or a college in natural or engineering science
- You have knowledge of electrochemistry and thermodynamics
- In addition to evaluation and documentation, you are interested in practical work in the laboratory

Due to the current situation, the presence in the institute is reduced to the necessary minimum. As far as possible, work and exchange with colleagues take place by means of information technology..

Applications to: michael.radspieler@zae-bayern.de

Stating **Reference: EmboPlate_Laboratory**

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