



## Student Research Assistant (HiWi)

### Experimental study and electrochemical analysis of organo-electrosynthesis

#### Research Area

- Batteries
- Fuels Cells and Electrolysis
- Electrocatalysis

#### Alignment

- Experimental
- Electrical Characterization
- Material Analysis
- Modelling
- Simulation
- Literature Research

#### Course of study

- Electrical Engineering
- Mechanical Engineering
- Chemical Engineering
- Physics
- Mathematics
- Industrial Engineering

#### Language

- English
- German

#### Starting date

As soon as possible

#### Contact person

Sonam Tamang, M.Eng.  
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<http://www.iam.kit.edu/et/>

#### Join the Future of Sustainable Chemistry!

Unlock the potential of technical organic electrosynthesis and contribute to global sustainability challenges. This cutting-edge field is reshaping the chemical industry by minimizing environmental impact and promoting resource efficiency. Traditional chemical methods often rely on fossil fuels and generate harmful byproducts. In contrast, electrosynthesis employs electricity as a direct reagent, eliminating waste and enabling mild reaction conditions. This approach aligns perfectly with the imperative for resource and energy-efficient chemical production, a key element in achieving sustainability and climate goals.

#### Opportunity for Student Assistants (Bachelor/Master):

We are seeking dedicated student assistants to join our team, committing a minimum of 20 hours per week with the potential for additional hours. The work areas are flexible and versatile, open for discussion to accommodate your strengths and interests. If you are in the early stages of your studies, don't worry – a thorough introduction and ongoing supervision will be provided.

#### Key Responsibilities:

- Preparation and post-processing of electrochemical cells, electrodes and measurement protocols
- Carrying out electrochemical measurements and reaction product analysis
- Post-processing and analysis of measurement data
- General laboratory tasks

#### Requirements:

- **Availability:** Minimum 40 hours per month (with the possibility of more).
- **Skills:** Knowledge of MATLAB or practical laboratory experience is advantageous but not mandatory.

#### What We Offer:

- **Learning Environment:** Receive comprehensive training and ongoing support.
- **Flexible Work Areas:** Tailor your responsibilities to match your skills and interests.
- **Impactful Work:** Contribute to innovative research in the field of electrochemical technologies.

#### How to Apply:

Send your resume and a brief cover letter outlining your interest in sustainable chemistry and relevant skills to Sonam Tamang ([sonam.tamang@kit.edu](mailto:sonam.tamang@kit.edu)).