University of Stuttgart
Germany

SUPER – Stuttgart University Program for Experiencing Research
Project Information

Institute's Information

Name of Institute	Institute for Chemical Process Engineering
Contact Person	Andrej Grabowski
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Duration of Project/Number of Students

June/July	
June/July/August	both possible
Number of Students	2

Name of Project Development of the test cell and equipment for characterization of ion-exchange membranes

Beneficial Skills & Knowledge Mechanical or Chemical Engineering; Plastics; CAD

Description of Work

Institute for Chemical Process Engineering develops novel concepts of membrane reactors for further realization in industrial products.
Ion-exchange membranes are key components of hydrogen fuel cells, red-ox flow batteries, electrodialysis desalination modules and other environmentally friendly devices. For selection of suitable membranes, we're developing a universal characterization method and equipment and propose it as a new industry standard. The characterization should envolve measurements of electrical conductivity, permeability and burst pressure. Starting with brainstorming and idea evaluation together we'll go through concept development and feasibility studies to prototype designing and building, finishing the development by evaluating the test procedure.
For those who are willing to unleash creativity and act hands-on!
You're welcome to join our engineering team and actively participate in an exciting technology and product development.