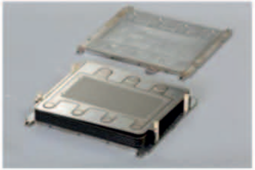
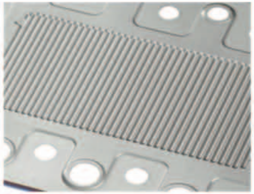
Institut für
Umformtechnik
und Leichtbau

Master's Thesis

Optimization of production of electrolyzer interconnect plates

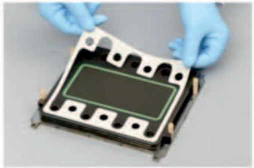


High temperature electrolyzers are important components to produce energy through a chemical reaction. One element of these electrolyzers is the interconnect plate, which seperates the reactive media and establishes the electical connection in the cell. To produce these plates economically, forming processes are typically used.



The presented thesis topic deals with the optimization of the production of these interconnect plates in cooperation with the Insitute of Technology and Engineering (ITE) of the Forschungszentrum Jülich. Currently, the plates are produced through a hydroforming process. To reduce costs, production at high volumes through a deep drawing process has been suggested. The tasks in this Thesis includes the analyzation of the production process of the interconnect plates and optimization of the geometry regarding deep dawability using simulative and experimental methods.

Requirements



- Preferably knowledge in Abaqus FE
- Interest in experimental and numerical studies
- Independent work ethic

JÜLICH Forschungszentrum | INSTITUTE OF TECHNOLOGY AND ENGINEERING

the exact scope will be defined together

technische universität dortmund

September 22, 2025

Contact person:

Eike Hoffmann M.Sc.
MB III, Raum 4.009,Campus-Süd
eike.hoffmann@iul.tu-dortmund.de
Tel.: (0231) 755 - 6926

TU Dortmund
Fakultät Maschinenbau
Institut für Umformtechnik
und Leichtbau
Prof. Dr. Yannis Korkolis

D-44227 Dortmund
Baroper Straße 303
Campus Süd / Einfahrt 42
www.iul.eu