

PoroTex – Development of an optimised textile gas diffusion layer for sustainable fuel cell technology

Problem / Motivation

- Increasing the efficiency and service life of fuel cells through improved GDL
- Utilisation of textile technologies for the production of innovative GDL structures
- Increased competitiveness through improved performance at lower manufacturing costs
- Need for alternative materials and production technologies to optimise GDL properties

Solution

- Development of nonwovens made from carbon and blend fibres
- Investigation of different fibre types and combinations
- Optimisation of airlay and needling processes for targeted pore structure and stability
- Adaptation of the spunlace process to the requirements of GDL materials

Project Start

10/2024

Project Partner

currently none,
open for enquiries

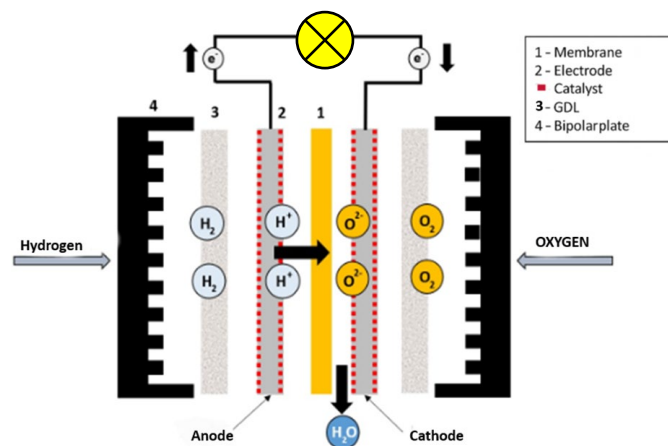


Illustration of how a PEM fuel cell works

Image source: „dilico,” [Online].

Available: <https://www.dilico.de/de/brennstoffzellen.php>

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Contact: Dipl.-Ing. Mulham Tahhan
Patrick Engel, M. Sc.

Phone: +49 371 5274-204
Phone: +49 371 5274-209

Email: mulham.tahhan@stfi.de
Email: patrick.engel@stfi.de

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