

Single and multi-cell electrolyser test units

Accelerate your research in electrochemistry with PEM water electrolyser systems

Photo: TNO

With over 10 years of experience in electrolysis technology and significant investment in R&D, Avantium R&D Solutions has developed advanced engineering solutions for electrolyser test systems. Our expertise ensures efficient and reproducible results, tailored to meet various research needs.



Electrolyser Test Systems

- Easy to use, robust and reliable test systems
- Parallel configuration: Test multiple cells at the same time and benefit from the high data quality due to the uniform test conditions
- Various options for product analysis
- Software Integration /Process Control



Features

- Flexibility to acid/base technology
- Pumps for high-pressure liquid feed
- Temperature control/Pressure control
- Liquid composition control
- Liquid sampling



Technologies

- Water electrolysis like PEM, AEL and AEM
- CO₂ electrolysis
- Solid oxide electrolyser



Automation

- Fully automated by PLC and control PC
- Recipe editor for automated test procedures
- Trending visualization
- GC software fully integrated into database
- Data export to excel and external databases



Safety

- Design according international safety standards and CE
- Interlock doors
- Ventilation failure detection, gas detection LEL
- Temperature alarms
- Liquid level probe and clogging protection
- Pressure relief valves and differential pressure transmitter



Options

- Solid oxide electrolyzer configuration with pre heated steam feed
- Gas feed control (e.g. CO₂)
- Optional pH control, Potentiostat
- Multiple cells
- Automated liquid sample robot, Gas analysis by GC or Sensors



Partnership with TNO

Avantium R&D Solutions offers innovative and tailored R&D products and contract R&D. TNO is a globally recognized leader in research and innovation.

TNO and Avantium partner to further develop and improve electrolyser test stations. Avantium will bring in its uniquely innovative expertise in accelerating R&D, manufacturing and commercial skills, while using the know-how of TNO on electrolysis test units, their long-term experience operating the TNO Faraday lab and insight in the user requirements of the electrolysis in the different applications.

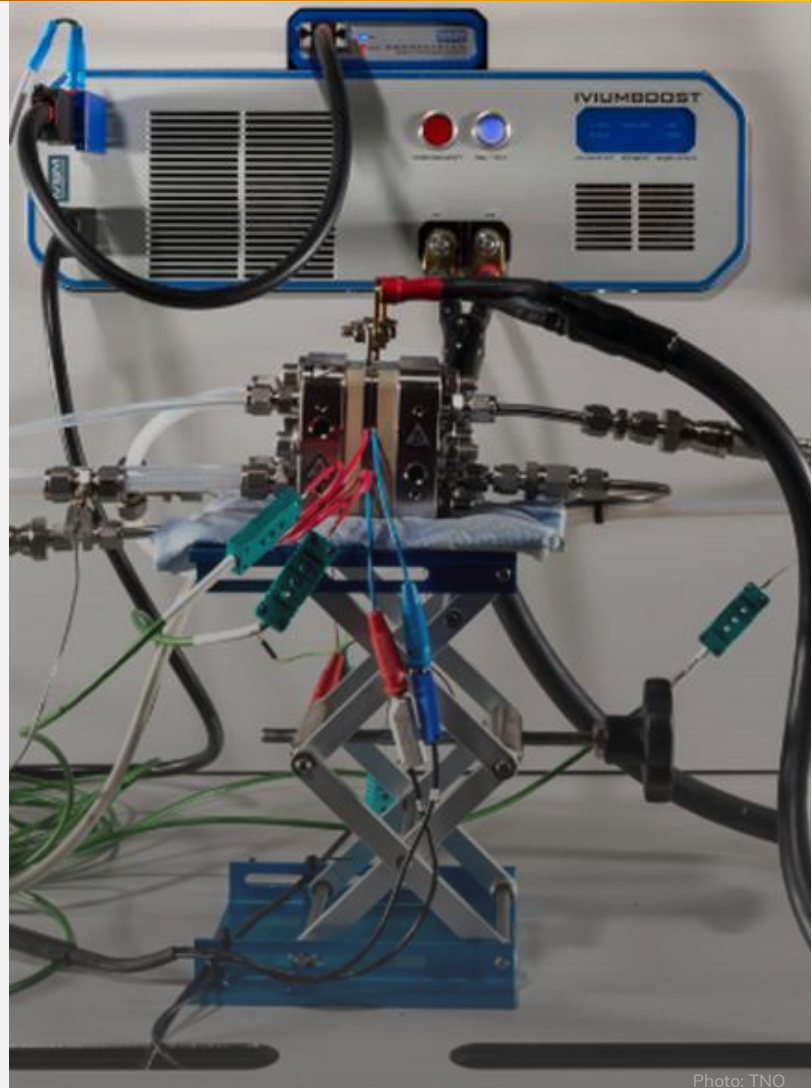


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