



Research Center for Hydrogen Technology

Research Center for Hydrogen Technology carries out R&D activities in the field of:

- hydrogen generation, application and storing especially in the area of gaseous hydrogen tanks,
- cryogenics,
- innovative electrode materials for electrolyzers and hydrogen fuel cells and
- heterogenous catalysis technologies in the low-carbon fuel industry.

We are part of **Hydrogen Europe Research**, in which we represent European scientific community committed to the development of a new hydrogen-based industrial ecosystem and the promotion of the transition to a zero-carbon circular economy.



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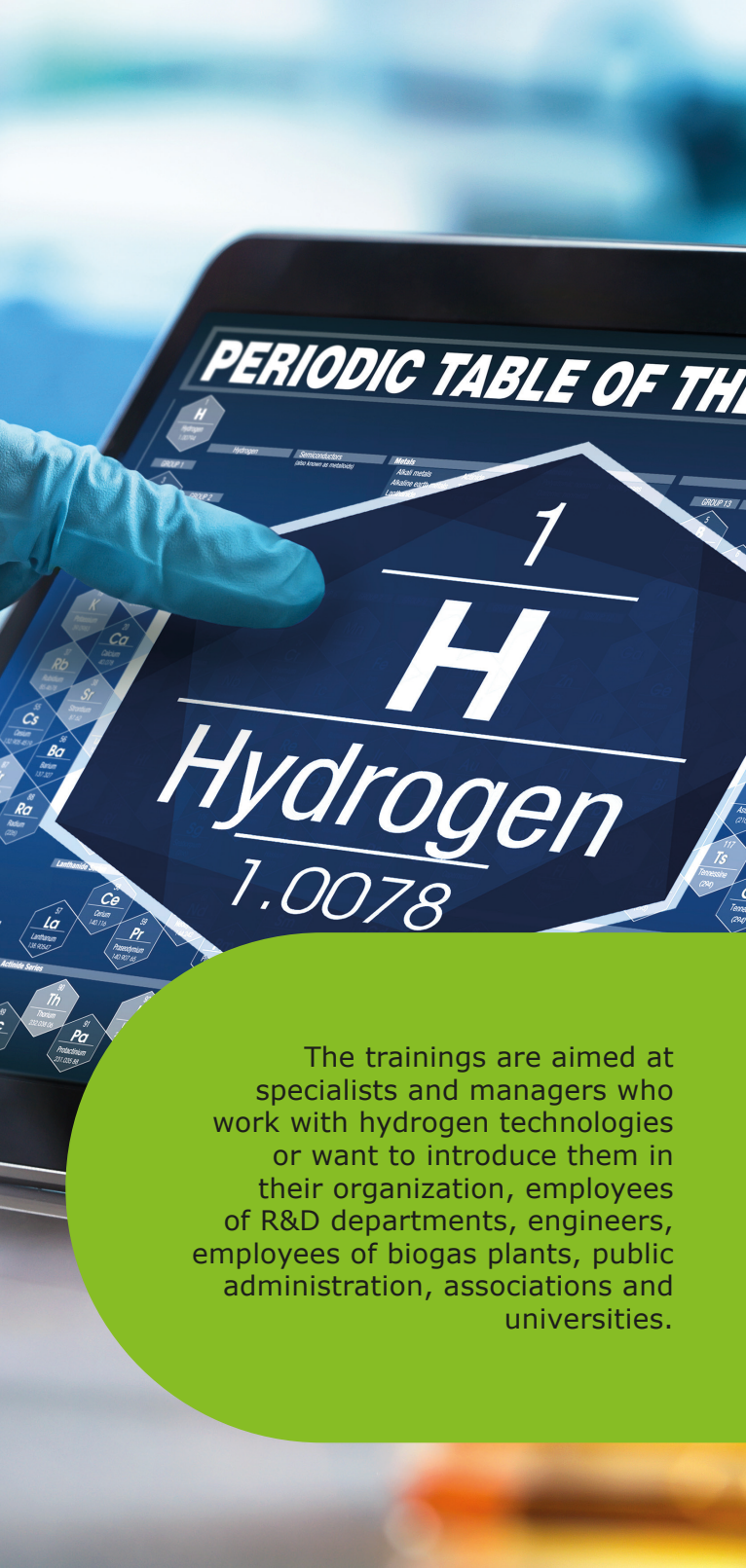
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Training Hydrogen Technology



Training topics

Considerations of the hydrogen economy, production and use of hydrogen, as well as the issues of hydrogen storage and distribution along with the legal environment for the implementation of hydrogen technologies in the economy.

Production, distribution and applications of green hydrogen.

PEM, AEM and AWE electrolysis explained - differences, limitations and new technologies in water electrolysis.

Hydrogen storage technologies/ Hydrogen and biomethane storage technologies.

Technological challenges in hydrogen-powered aviation.

Hydrogen fuel cells.

New technologies for producing hydrogen from biomethane.

Heterogeneous catalysis and its applications in biomethane processing technologies.

Technologies for purification and separation of CO₂ from biogas.

Identification of transformations occurring during heating of materials used for hydrogen storage. Challenges in interpretation of research results.

The trainings are aimed at specialists and managers who work with hydrogen technologies or want to introduce them in their organization, employees of R&D departments, engineers, employees of biogas plants, public administration, associations and universities.

Sample framework training program

Module 1 – introduction to the hydrogen economy

EU climate policy, Polish Hydrogen Strategy

European strategies for the implementation of green hydrogen, EC directives and regulations

Module 2 – hydrogen production

properties of hydrogen as an energy carrier

review of hydrogen production technologies, comparison of emission

electrolyzers, types, parameters

Module 3 – the use of hydrogen

selected industrial applications of hydrogen

hydrogen processing – fuel cells

hydrogen installation as a source of energy for the facility

hydrogen drive, electromobility

Module 4 – hydrogen storage and distribution

forms of hydrogen storage and distribution

effects of hydrogen on construction materials

hydrogen tanks and storage facilities

hydrogen transmission and transport

Module 5 – legal environment for hydrogen technologies

certificates of origin for green hydrogen

safety of hydrogen technologies, standards

laws and regulations in hydrogen economy

5 thematic modules

The scope of information provided within the modules can be tailored to the customer's needs.