Project Details

Title: Development of new electrode materials and understanding of degradation mechanisms on Solid Oxide High Temperature Electrolysis Cells
Acronym: SElySOs
Project ID: 671481
Call: H2020-JTI-FCH-2014-1
Application Area: "Research in electrolysis for cost effective hydrogen production"
Project type: Research and Innovation Action
Starting date: November 2nd, 2015
Duration: 48 months
Coordinator: Foundation for Research and Technology Hellas, (FORTH)
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Description

The aim of this research is to understand the degradation and lifetime fundamentals of the high (700–900 °C) temperature H_2O electrolysis and to a certain extent for the H_2O/CO_2 co-electrolysis. The project is focusing on both of the Solid Oxide Electrolysis Cell (SOEC) electrodes, for minimization of their degradation and improvement of their performance and stability mainly under high temperature H_2O electrolysis for the production of H_2 and to a certain extent under H_2O/CO_2 co- electrolysis conditions for the production of syngas (H_2 and CO).

Project Partners

- Foundation for Research and Technology Hellas, (FORTH), Greece
- Centre for Research & Technology Hellas, (CERTH), Greece
- Forschungszentrum Juelich GMBH, (Juelich), Germany
- Vysoka Skola Chemicko-Technologicka V Praze, (VSCHT), Czech Republic
- Centre National de la Reserche Scientifique, (CNRS), France
- Prototech AS (CMR Prototech), Norway
- PyroGenesis SA (PyroGenesis SA), Greece