

Fiammetta Rita Bianchi

Researcher

EDUCATION AND TRAINING

2022

PhD in Chemical, Materials and Process Engineering

Solid oxide cell modelling

University of Genova - Genova – IT

2018

Master's Degree in Chemical and Process Engineering

CO₂ adsorption on zeolite 13X: Lab-scale tests and mathematical simulation

University of Genova - Genova – IT

2016

Bachelor's Degree in Chemical Engineering

Energy valorization of textile wastes through gasification

University of Genova - Genova – IT

PROFESSIONAL HISTORY

2023-ONGOING

Post-doc researcher in ICHI-01/A – Chimica fisica applicata

University of Genova - Genova – IT

2022-2023

Research fellow

Modelling of degradation mechanisms in solid oxide electrochemical cells

University of Genova - Genova – IT

EXPERIENCE

SCIENTIFIC RESEARCH

My activity focuses on chemical process analysis and modelling. The primary topic is hydrogen production and use, mainly through electrochemical cells, referring to both high and low temperature cell technologies. My activity consists of their modelling through a physically based multiscale approach in order to detect system performance and durability. Simulation allows to evaluate cell feasibility for both Gas to Power (fuel cell operation) and Power to Gas (electrolysis mode) applications.

PUBLICATIONS

- Author of 22 scientific papers, published in refereed journals or presented at international conferences (source: SCOPUS)
- Contribution to JRC validated methods, reference methods and measurements reports as hydrogen expert