AIKATERINA PARASKEVI DAMIRI

Date of birth: 04/08/2001

Email: adamiri@tuc.gr

LinkedIn: linkedin.com/in/katerina-damiri-30a597277

Work: Institute of Geoenergy (IG) - FORTH, University Campus, (Greece)

ABOUT ME

Motivated environmental engineer with experience in heterogeneous catalytic processes. Highly curious and driven by personal growth and the pursuit of knowledge, with a strong interest in sustainable energy and environmental solutions.

EDUCATION

PhD Student - Catalytic Methane Pyrolysis

Technical University of Crete & Institute of Geoenergy (IG)-FORTH [01/2026 – In progress]

Doctoral research focused on catalytic methane pyrolysis as a pathway for low-carbon hydrogen production. The work investigates the decomposition of methane into hydrogen and solid carbon using heterogeneous catalysts, aiming to optimize catalytic performance, reaction efficiency, and carbon management.

Integrated master's degree in Environmental Engineering, School of Chemical and Environmental Engineering

Technical University of Crete [10/2019 – 07/2025]

Thesis: Biogas Reforming on supported Ruthinium Catalysts

The diploma thesis was built upon a review paper on alternative methods for hydrogen production, published in April 2024, extending the research into experimental studies with a focus on catalyst performance. The study primarily examined the synthesis and performance of supported ruthenium catalysts in the process of dry reforming of biogas (DRM) under initial and aging conditions.

WORK EXPERIENCE

Institute of GeoEnergy - Foundation for Research and Technology – Hellas (FORTH)

Research Scholar [01/02/2024 – 31/12/2025]

Project: *«Towards the development of a hydrogen valley demonstrating applications in an intEgRated EcoSystem in Greece»* (*TRIERES),* Grant Agreement No: 101112056

Link https://trieres-h2.eu/

Main activities and responsibilities:

- Research on alternative processes for green hydrogen production, with emphasis on biomass-based hydrogen generation.
- Experimental research on catalytic biogas reforming processes towards hydrogen production.
- Techno-economic analysis of hydrogen production via catalytic biogas reforming process.

NCSR "DEMOKRITOS"

Intership [10/07/2023 – 11/09/2023]

Renewable energy sector

- Engaged in research on green hydrogen production pathways under the TRIERES project.
- Conducted a comparative review on green hydrogen production, focused on generating hydrogen from biomass

PUPLICATIONS

A Review of Alternative Processes for Green Hydrogen Production Focused on Generating Hydrogen from Biomass, [2024]

Damiri, A.P. (Et al.) A Review of Alternative Processes for Green Hydrogen Production Focused on Generating Hydrogen from Biomass. Hydrogen 2024, 5, 163-184.

SEMINARS

Course on Technology - 22 Green Street: a district like no other - Paris, France

- Ecodistricts and smart cities
- Measures to reduce the world's carbon footprint
- Renewable energy applications.

LANGUAGES

Mother tongue: Greek

Other languages: English (C2)

SKILLS

AutoCad 2D / Microsoft Excel / Microsoft Word / Microsoft Powerpoint / OriginLab / Autodesk Fusion

VOLUNTEERING

Board of European Students of Technology [10/2021 – 07/2024]
Technical University of Crete - Chania

Event Coordinator, Event Organizer & Human Resources Management in events such as: Motivational Weekends, Trainshops, Summer Courses, Engineering Competitions, Regional Meetings, etc.