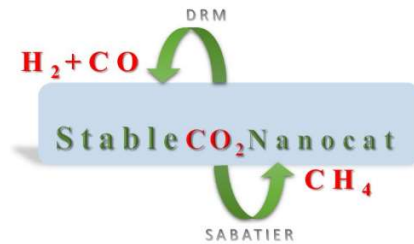


New successes of the “Lab. of Physical Chemistry and Chemical Processes ([PCCPLab](#)), School of Chemical & Environmental Engineering, Technical University of Crete, in funding its research: Two new projects from Hellenic Foundation for Research & Innovation (H.F.R.I).



PROJECT #1:

Stable CO_2 Nanocat

“Innovative design of stable, efficient and in situ regenerable nanocatalysts for CO_2 recycling by CO_2 methanation and CO_2 reforming by methane processes.”



Coordinator of the research project “[Stable \$CO_2\$ Nanocat](#)” is [Ioannis V. Yentekakis](#), Professor at the [School of Chemical & Environmental Engineering](#), and Director of the Lab. of Physical Chemistry & Chemical Processes ([PCCPLab](#)). The project will be run in collaboration with Professor Michael Karakassides of the Dept. of Materials Science and Engineering, University of Ioannina.

The aim of the research project is the design of stable and efficient CO_2 processing catalysts, specifically for CO_2 methanation and CO_2 reforming by CH_4 processes. Both topics are at the top of research interest due to their high environmental, energy and economic importance (circular economy strategies).

“Stable CO_2 Nanocat” is funded by [Hellenic Foundation for Research & Innovation](#) (H.F.R.I) in the context of the call “Basic Research Financing, Sub-action II, (Horizontal support for all Sciences)” which is included in the component 4.5 “Promoting Research and Innovation” of the National Recovery and Resilience Plan (“Greece 2.0”), funded by the European Union – Next Generation EU).

Total Budget: 400.000 € (**TUC’s Budget:** 220.000 €) **Duration:** 2023-2025.

PROJECT #2:

« PhotoUpPlas »

«Green and Sustainable Photochemical Upcycling of Plastic Waste and Biobased Polymers to High-Added Value Chemicals»



TUC's Principal Investigator of the project "[PhotoUpPlas](#)" is Prof. [Dimitrios Gournis](#), [School of Chemical and Environmental Engineering](#), Technical University of Crete, and Vice-Director of the Lab. of Physical Chemistry & Chemical Processes ([PCCPLab](#)). The project will be run in collaboration with Professor Christoforos Kokotos (Program Coordinator) of Chemistry Department of National and Kapodistrian University of Athens, and Professor Konstantinos Triantafyllidis of Chemistry Department of Aristotle

University of Thessaloniki.

The aim of the project is the development of photochemical upcycling processes of plastic waste into high-added value chemicals. New materials will be tested in photochemical upcycling processes of plastics, while valorization and recycling of biobased polymers will be performed. Continuous flow photochemical reactors will be used to upgrade this effort in large scale, while DFT calculations will help unlock the reaction mechanism of these processes.

The project is funded by [Hellenic Foundation for Research & Innovation](#) (H.F.R.I) in the context of the call "Basic Research Financing, Sub-action II, (Horizontal support for all Sciences)" which is included in the component 4.5 "Promoting Research and Innovation" of the National Recovery and Resilience Plan ("Greece 2.0"), funded by the European Union – Next Generation EU).

Total Budget: 400.000 € (**TUC's Budget:** 115.000 €) **Duration:** 2023-2025.

