

# Università di Catania

## Dottorato in Scienza dei Materiali e Nanotecnologie

### PhD workshop - DFA, Sala Conferenze, 2 Febbraio 2026

#### Materials and technologies for environmental remediation

09:00 Giusy Dativo *Sustainable photothermo-catalysts for the air purification*

09:20 Antonella Castro *Solar energy conversion materials*

09:40 Vanessa Spanò *Synthesis, methodologies and characterization of porous materials for environmental and energy applications*

10:00 Luca Calantropo *Layered Double hydroxide (LDH)-based composites: synthesis and applications in hybrid photocatalytic processes*

10:20 Alessia Di Grazia *New Materials for Water Splitting and Energy Storage*

10:40 Coffee break

#### Materials and technologies for solar energy conversion

11:00 Mehdi Ahmadi *Solar cell technologies with new semiconductors*

11:20 Claudia Barbagallo *Synthesis of novel multifunctional materials for solar cells and sensing*

11:40 Federica Scardaci *Industrializable synthetic processes for photovoltaic materials*

12:00 Benedetto Piritore *Innovative and sustainable materials for transparent electrodes*

12:20 Laura Salamone *Synthesis of ferrite thin films for water splitting and light-driven applications*

12:40 Stijn Engelaar *Novel alkali (K, Na) metal-organic precursors and sol-gel growth of KNN*

13:00 Light lunch

#### Materials and technologies for electrocatalysis applications

14:00 Cristiano Lo Po *Fabrication and characterization of nano-catalysts for the Hydrogen Evolution Reaction and Oxygen Evolution Reaction processes*

14:20 Soumia El Boumlasy *Low-cost and sustainable nano-catalysts for water splitting using seawater*

14:40 Angelo Di Mauro *Sustainable nanotechnology for energy storage devices*

15:00 Alessia Fischetti *Optimization and investigation of the electrochemical behaviour of Zn-based nanostructures for supercapacitor applications*

15:20 Valentina La Torre *Development of sustainable thin films for energy storage systems*

15:40 Coffee break

#### Materials and technologies for advanced applications

16:00 Luigi Fabiano *Smart biointerfaces for environmental and biological systems*

16:20 Antouman Sallah *Quantum technologies in solid-state systems: defects adapted for implementations for quantum sensing*

16:40 Uswah Yasin *Printed 2D Materials for Reduced Environmental Impact of Electronic Waste*

17:00 Federico La Barbera *Printed low dimensional material for advanced sensing*

17:20 Laura Barone *Spectroscopic analyses of H<sub>2</sub>O:CO<sub>2</sub> ices in simulated space environments: a preliminary study in support of the JUICE Mission*

17:40 Sonia Zappalà *Chemical vapor deposition of Graphene on nanostructured Molybdenum*