CLAUDIO CLEMENTE

Affiliation

- Deparmente of Physics,
  University of Naples Federico II,
  P. V. Tecchio 80, Naples, IT-80125, Italy
- Institute STEMS of the CNR,
  G. Marconi 4, Naples, IT-80125, Italy

+39 3473515203

claudio.clemente@unina.it

ORCID: 0009-0005-5372-5739

Research areas: Carbon-based materials, Metal-Organic Frameworks (MOFs), hybrid nanomaterials, sustainable materials from biomass, gas sensing, electrochemical sensing, thin film deposition.

Research keywords: Synthesis and characterization of carbon- and MOF-based materials, techniques such as Cyclic Voltammetry (CV), Electrochemical Impedance Spectroscopy (EIS), Differential Pulse Anodic Stripping Voltammetry (DPASV), thin film deposition using Matrix-Assisted Pulsed Laser Evaporation (MAPLE) and Pulsed Laser Deposition (PLD), electrochemical detection of heavy metals, chemiresistive sensors for gas detection.

Claudio Clemente is a PhD student in Physics at the University of Naples Federico II and is affiliated with STEMS-CNR. His research focuses on the synthesis and characterization of carbon-based and MOF-based materials for electrochemical and chemiresistive sensors aimed at detecting environmental pollutants in water and air. He is an active member of several COST Actions, serving as WG Member CA19118 (WG3, WG4, WG6, active since 06/03/2023) and WG Member CA20127 (WG3, active since 16/09/2024). In 2024, he was awarded a Short-Term Scientific Mission (STSM) grant by the WIRE COST Action to conduct research at the FTMC Institute in Vilnius, Lithuania, aimed at investigating sustainable biochar-derived materials for the electrochemical sensing of heavy metals in water. Following the STSM, he continued his research work for three months as a visiting student at the FTMC Institute. He has contributed to two scientific publications (10.3390/molecules30122611 and 10.1088/2515-7639/ad6cf6) and actively participated in several international and national conferences, presenting his work and engaging with the scientific community.