

Mariamelia Stanzione learned a master's in chemistry (2008) and a PhD in chemical engineering (2012) from the University of Salerno. Since 2020, she has been a permanent researcher at IPCB-CNR. Her work focuses on the synthesis and modelling of smart polymeric and nanomaterials for applications in packaging, agriculture, and biomedical fields. She develops active polymeric films, coatings, and nanoparticles with antimicrobial and responsive properties, using materials like mesoporous silica and natural clay. Her research also includes designing multifunctional polymer composites and sustainable thermoplastic polyurethane by incorporating bio-based precursors to enhance mechanical, thermal, and barrier properties while promoting eco-friendliness.