

PhD Student (National PhD – DIN) in Catalysis at the Department of Industrial Chemistry “Toso Montanari” of the Università di Bologna since 2024, he carries out his research activity in the field of industrial chemistry and heterogeneous catalysis applied to the sustainable valorization of biomass.

Education

He obtained his Master’s Degree (110/110) in Industrial Chemistry and Chemical Technologies (LM-71) from the Università di Bologna in 2024, within the international master’s degree program in *Low Carbon Technologies and Sustainable Chemistry*. He defended a thesis entitled “*Model molecule investigation for reductive catalytic fractionation of lignin using innovative magnetic catalysts*” under the supervision of Prof. Tommaso Tabanelli.

In 2022, he earned his Bachelor’s Degree in Chemical Sciences and Technologies (L-27) from the Università di Bologna (Rimini Campus), with a literature-based thesis in Environmental Chemistry entitled “*Fingerprinting techniques for the chemical characterization of hydrocarbon spills*”, focused on the identification and characterization of contaminants in environmental matrices, under the supervision of Prof. Ivano Vassura.

Academic Career

Since November 1st, 2024, he has been a PhD Student (National PhD – DIN) in Catalysis at the Department of Industrial Chemistry “Toso Montanari” of the Università di Bologna, under the supervision of Prof. Tommaso Tabanelli, studying catalytic techniques for the valorization of lignocellulosic biomass. Previously, he carried out a curricular internship (February 2024 – September 2024) at the same Department, further developing the research activities that later evolved into his PhD project.

Teaching Activity

Since 2026, he has been serving as Laboratory Teaching Tutor for the course *Inorganic Chemistry with Laboratory (Module 2)* at the Rimini Campus of the Università di Bologna, within the Bachelor’s Degree program in Chemical Sciences and Technologies for the Environment and Materials.

Scientific Activity

His research activity focuses on the development of sustainable catalytic processes for the valorization of second-generation lignocellulosic biomass, with reference to the synthesis and characterization of innovative heterogeneous catalysts, the study of catalytic activity in laboratory-scale batch reactors, and related analytical investigations. He has participated in several national and international conferences, delivering oral presentations and poster contributions related to his research line on the reductive catalytic fractionation of biomass.