

Leonardo Duranti - CV

Leonardo Duranti is Tenure Track Researcher (RTT) at the Department of Chemical Science and Technologies, University of Rome Tor Vergata since November 2024. He received his PhD in Materials for Health, Environment and Energy in 2021. He has been Postdoctoral fellow in 2021-2022, Researcher and Assistant Professor (RTDa) in 2022-2024 at the Department of Chemical Science and Technologies, University of Rome Tor Vergata.

The research activity of Dr. Leonardo Duranti is aimed at the development of metal oxides for applications in heterogeneous catalysis and energy storage/conversion devices. It mainly covers three research topics, focusing on the design, development and characterization of: 1) electrode materials for Intermediate Temperature Solid Oxide Fuel Cells (IT-SOFCs), Solid Oxide Electrolyzer Cells (SOEC) for CO₂ electrolysis and H₂O/CO₂ co-electrolysis, and Reversible Solid Oxide Cells (RSOCs). The focus is on the correlation between the electrode materials chemical-physical properties and their electrocatalytic activity in complete cell tests; 2) smart catalysts for Dry Methane Reforming (DRM), Steam Methane Reforming (SMR), and Sorption-Enhanced Steam Methane Reforming (SE-SMR); 3) complex-oxides based Oxygen Evolution Reaction (OER) electrocatalysts for anodic applications in Alkaline Water Electrolyzers (AWE) and Anion-Exchange Membrane Water Electrolyzers (AEMWE).

He is author of over 37 scientific publications in Web-of-Science indexed peer-reviewed journals; he has been guest editor and produced several contributions in national and international conferences, with five invited oral presentations. Dr. Duranti's research received several recognitions: in 2018 he was awarded the best poster prize at the *1st ENERCHEM School - Chemistry for The Energy Transition*, held by the Italian Chemical Society (SCI); in 2021 he was awarded the best oral presentation prize at the *Italian Virtual Workshop on Fuel Cells 2021 (IVWFC 2021)* held by the Italian Chemical Society (SCI); In 2024 he was awarded the "Gualtiero Gusmano" award for the best oral presentation at the *XIV INSTM Congress*, held by the National Interuniversity Consortium of Materials Science and Technology (INSTM). His work has been carried out in collaboration with national and international groups.