First level degree in Materials Science in 1999 from Catania University, defending one thesis on "Transmission Electron Microscopy on iron silicide precipitates in silicon."

He worked for two years in collaboration with STMicroelectronics, in the field of Transmission Electron Microscopy structural characterization of microelectronic devices.

In 2002 he applied for a permanent position at the "Istituto per la Microelettronica ed i Microsistemi" (IMM) in Catania, in the technical staff.

He has developed expertize in Transmission Electron Microscopy, Electron Diffraction, Crystallography, Energy-Filtered TEM (EF-TEM), Scanning TEM (STEM), Energy Dispersive X-Ray Spectroscopy (EDXS) and Electron Energy Loss Spectroscopy (EELS).

Since 2002 he was involved in many activities, and applied his knowledge in Transmission Electron microscopy over a wide range of materials: Silicon and related metallization and passivation materials, Silicon-Germanium alloy, Silicon Carbide (SiC), Gallium Nitride (GaN), Titanium Oxides (TiO_2), Ge-Sb-Te Calchogenide, Graphene oxide and Hibryd lead-iodide Perovskite ($CH_3NH_3PbI_3$). He applied his knowledge in diffraction process and crystallography in some EXAFS experiments at SOLEIL synchrotron radiations facility in Paris.

He well knows all the advanced mechanical and ion-milling based sample preparation techniques and chemical etching for 2D-dopant profiling

He is co-authors of many international papers in a wide range of arguments and followed courses, international conferences and workshops.