

WORK EXPERIENCE

2011-2025

Senior researcher – Head of Research Unit

Bruno Kessler Foundation (FBK), Trento, Italy

- Head of the Research Unit **Integrated and Quantum Optics**, during the years the group performed research in the fields of optical and mechanical coating, materials for energy applications and specialized in recent years especially in the field of integrated optical circuits and quantum optics.
- Within my research in the field of integrated optics an important part is dedicated to the development of integrated circuits with microring resonators as sensing elements for biomedical sensors.

2001 - 2010

Researcher

ICT-IRST (later transformed in Bruno Kessler Foundation), Trento, Italy

- Research on the development and fabrication of high energy particle detectors for the large experiments of AMS (alpha magnetron spectrometer) and ALICE at CERN.
- Research in the field of integrated optics related to optical waveguides and microresonators, and silicon nanocrystal based devices.

Oct. 1996 – Dec. 2000

Postdoctoral Associate

Department of Physics University of Trento

- Research in the field of optical spectroscopy of rare-earth ions in glasses, Development of silicon nanocrystal based light emitting diodes

EDUCATION AND TRAINING

Apr. 1996 – Mar. 1996

Graduated to Doctor of Technical Sciences

Technical University Graz, Austria

- Title of PhD thesis: Optical Investigations of Eu³⁺ and Nd³⁺ doped sodium borate and sodium borosilicate glasses

Oct. 1986 – Mar. 1993

Master Degree in Technical Chemistry

Technical University Graz, Austria

- Title master thesis: Realisation and Optical characterisation of Rare-earth doped borate and silicate glasses

