

Raimondo Cecchini

Education.

- 19/01/2004, **University of Bristol (Bristol, U.K.), PhD in Physics**. Thesis title: “*AFM study of metal electrodeposition on semiconductors and patterned electrodes*”.
- 23/10/1998, **University of Bologna (Bologna, Italy), MSc Physics degree**. Thesis title: “*Fabrication of microstructures on Si and GaAs by electrodeposition and lithography*”.

Work and research experience.

- January 2014 – present. **MDM Laboratory of the Institute for Microelectronics and Microsystems (IMM-CNR, Agrate Brianza, Italy). Post-doctoral researcher**. MOCVD growth and characterization of chalcogenide thin films and nanowires for phase change memories.
- October 2011 – December 2014. **Institute for the Study of Nano-Structured Materials (ISMN-CNR, Bologna, Italy). Post-doctoral researcher**. Deposition and characterization of organic and metallic thin films by thermal evaporation and e-gun evaporation for spintronic devices.
- October 2010 – September 2011. **Institute of Material Science of Seville (ICMSE-CSIC, Spain). Post-doctoral researcher**. Sputter deposition of thin films, SEM, XRD and mechanical characterization (adhesion, residual stress) of nanostructured coatings and thin films.
- January 2007 – September 2010. **Marche Polytechnic University (Ancona, Italy), Engineering Department, Metallurgy group, post-doctoral researcher**. Characterization of thin films and protective coatings by SEM, AFM, XRD and nanoindentation; coatings thermal oxidation behavior.
- February 2004 – January 2007. **STMICROELECTRONICS (Agrate Brianza, Milano, Italy) Central R&D for non-volatile memories, process development engineer**. Chalcogenide thin films deposition by sputtering for phase change memories, hardware and process audit and development.

Research interests and expertise.

- Thin films, coatings and nanostructures growth by electrodeposition, sputtering, thermal evaporation, electron-gun evaporation and MOCVD.
- Thin films, coatings and nanostructures characterization by AFM, SEM, XRD, TXRF and TEM.
- Thin films and coatings (nano)mechanical characterization by nanoindentation and scratch.
- Photo and e-beam lithography, surface nano-patterning/nano-structuring.
- Phase change memories devices; organic spintronic devices.