

SARA FERRARIS – short CV

Sara Ferraris was born in Turin on 19 July 1981.

Sara Ferraris received a first level degree in Biomedical Engineering from the Politecnico di Torino in September 2003 (mark 110/110) with a thesis concerning pelvic biomechanics and biomaterials for urological and gynaecological applications, realized in collaboration with Mauriziano Hospital in Turin. In December 2005 she received a second level degree cum laude in Biomedical Engineering from the Politecnico di Torino with a thesis concerning antibacterial and bioactive glass ceramics for osteosynthesis applications, realized in collaboration with C.T.O. Hospital in Turin and Turin University (General Pathology and Experimental Oncology Department).

From May 2006 to December 2006 she continued her research work at Politecnico di Torino with a fellowship on antibacterial materials financed by Eurocoating SpA. From January 2007 to December 2009 she was PhD student in Biomedical Engineering at Politecnico di Torino and in June 2010 she received PhD in Biomedical engineering with a thesis on Surface Functionalization of Biomaterials. In September 2010 she won the Paolo Durst 2010 prize (in collaboration with the national bioengineering group – GNB and Microtech s.r.l.) for her PhD thesis in biomedical engineering.

From 2010 to 2018 she had post doc fellowships at Politecnico di Torino (Department of Applied Science and Technology) and worked on surface modification and characterization of biomaterials for different applications (e.g. bone integration, cancer therapy, antifouling, antibacterial).

Actually she is RTD-A at Politecnico di Torino (Department of Applied Science and Technology) and she works mainly on surface modification and characterization of metallic materials and biomaterials.

Her main technical competencies are the following:

- synthesis and characterization of glasses and glass ceramics with different reactivity
- thermo-chemical treatments for surface modification of metals
- topographical modifications of metals
- surface functionalization of biomaterials (biomolecular grafting)
- coatings
- brazing
- morphological characterization of materials (optical microscopy, scanning electron microscopy – SEM/FESEM, Atomic Force Microscopy – AFM, profilometry)
- Physico-chemical characterization of materials (energy dispersive spectroscopy – EDS, X-ray photoelectron spectroscopy – XPS, infrared spectroscopy – IR, FTIR, wettability measurements)
- zeta potential measurements
- Crystallographic characterization of materials (X-ray diffraction – XRD)
- Ageing tests
- Mechanical characterization of materials (tensile, flexural and compressive test, tape adhesion test, scratch test)
- ion/molecular release test (UV, ICP)
- in vitro bioactivity evaluation

She performed at about 300 hours of lesson at Politecnico di Torino and 20 at Università di Torino in the field of materials science and she was co-tutor of more than 40 students for their master degree thesis.

She has 79 publications on international journals, 874 citations and an h-index of 17 (Scopus, 7 March 2019).