

Emma ANGELINI, graduated in Chemistry at the University of Torino in 1975, she actually works in the Department of Materials Science and Chemical Engineering, where she was nominated in 1976 Assistant of Physical Chemistry at Politechnic of Torino, in 1985 Associate Professor of Chemistry in the Faculty of Engineering, Politechnic of Torino, in december 2003 Professor of Applied Physical Chemistry.

She has been member of the Academic Senate of Politechnic of Torino from november 2001 to november 2003.

She teaches Chemistry in the courses of Eletronic Engineering, and in the field of e-learning she recorded a course of Chemistry broadcasted by RAI NETTUNO SAT1 and RAI NETTUNO SAT2, by means of HotBird satellite of EUTELSAT.

She is responsible for research projects in the following fields : i) protection of cultural heritage, ii) biomaterials to be employed in restorative dentistry, iii) innovative alloys for employments in electrocatalysis.

In particular she was involved in several research projects as responsibel of an operative unit: research projects granted by C.N.R. (National Research Council) Committee 15, Science and Technology for Cultural Heritage; Finalized Project of C.N.R. on Cultural Heritage with a study on the Methodology for the evaluation of the conservation degree of iron metallic artefacts; C.N.R. Finalized Project: Special Materials for Advanced Technology , Characterization, properties and qualification of materials; Finalized Project Innovative Materials: Biomaterials with a study on Innovative materials for conservative dentistry.

She is responsible of: (i)Galileo Cooperation Programme between Italy and France for the study of a Methodology for the evaluation of the corrosion degree and of the effectiveness of recovering treatments on archaeological matallic artefacts; (ii) European Project Growth NANOMAG (Development Of Innovative Nanocomposites Coating for Magnesium Castings Protection);(iii)European Project INCOMED EFESTUS (Tailored strategies for the conservation and restoration of archaeological value Cu-based artefacts from Mediterranean Countries); etc..

She has been Member of Expert Evaluators Panel: (i) in the IV Framework Programme of the European Community for Measurement and Testing R&D projects, (ii) in the VI Framework Programme for Co-operative Research under the Horizontal Research Activities involving SMEs FP6-2002-SME1.

She is member of :

- EFC (European Federation of Corrosion) Working Party "Surface Science and Mechanism of Corrosion and Protection"
- Scientific Commitee of the Journal "La Metallurgia Italiana"
- AIM (Associazione Italiana di Metallurgia) as Secretary of the Technical Commitee Corrosion
- SCI : Societa' Chimica Italiana, Electrochemistry and Mass Spectrometry Division
- AIAr(Associazione Italiana di Archeometria)
- ESB (European Society for Biomaterials)

She is involved in the EC Activity as Evaluator of Research Programs SMT Measurements and Testing.

The scientific work carried out and the more than 100 papers published may be grouped according to the following themes:

1. Corrosion and protection of metallic materials - the research has been devoted to the study of the corrosion resistance of superficially treated steels, duplex stainless steels and sintered steels, amorphous and nanocrystalline alloys.
2. Characterization of materials for mass standards - in co-operation with the Metrologic Institute COLONNETTI electrochemical techniques are applied to the characterization of materials for mass standards in order to study the mass stability.
3. Analysis, corrosion processes and restoration problems on archaeological artifacts - studies of degradation processes on archaeological artifacts are carried out and in co-operation with the Egyptian Museum of Turin, studies of composition, trace elements and lead isotopic ratio of nuragic

bronzes are performed in co-operation with the Museum of Cagliari in order to obtain information on the origin of the artifacts.

4. Studies on biomaterials - the research is carried out mainly on dental materials in environments simulating the oral cavity, in order to evaluate the corrosion resistance and release of ions.