



Seminars at the Department of Chemistry and Industrial Chemistry



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CV

Emma Angelini graduated in Chemistry at Torino University is Full Professor of Applied Physical Chemistry in the Department of Applied Science and Technology of Politecnico di Torino.

She is Vice President of ICC (International Corrosion Council). She teaches Chemistry in the courses of Electronic Engineering, and in the field of e-learning she recorded a course of Chemistry. She is responsible for national and international research projects in the field of protection of cultural heritage and innovative materials.

Her scientific work carried out and the more than 200 papers published may be grouped according to the following themes: studies on the protection of Cultural Heritage; corrosion and protection of metallic materials, PECVD coatings for protection of metals, iron alloys, magnesium alloys, silver alloys, studies on biomaterial.

Mercoledì 12 giugno 2019

Aula Magna

ore 14.00

The challenge of preserving metallic artefacts: obstacles and solution

Abstract Cultural Heritage assets deterioration is the result of several causes, environmental, as light, temperature, humidity, gaseous pollutants, or biological. Conservation of metals needs of a complex multi-step approach, which requires a specific interaction with the object in order to identify degradation agents and mechanisms and to establish their chemical-physical stability via tailored conservation treatments. A highly sensitive and innovative methodology for evaluating the safety level of the museum indoor areas, with respect to metallic artefacts has been developed by the interdisciplinary group of Politecnico di Torino and is under test in several museums and historical sites, as Stibbert Museum in Florence, Egyptian Museum of Cairo, Villa della Regina in Torino, Puente de Boyacà in Colombia, National Museum of Colombia in Bogotá. The methodology is based on an innovative smart sensors network for the continuous monitoring of temperature and relative humidity and of copper, silver, iron reference samples, and on the chemical-physical characterization of the artefacts corrosion products with the ultimate goal of developing tailored preventive conservation strategies.

To find out how to reach the Department, go to <http://www.chimica.unige.it>. For further informations on this specific seminar or in order to ask for an appointment with the speaker after or before the seminar, contact Prof. **Maurizio Ferretti**, room 820 ☎ +39 010 3536985 e-mail: ferretti@chimica.unige.it