Roberta Bongiovanni Curriculum Vitae

Full Professor of Chemistry
Department of Applied Science & Technology
Politecnico di Torino

Education, academic career and research activity

Roberta Bongiovanni graduated in Chemistry in 1986 at the University of Torino (Italy), with honors, discussing a final project on the 'Synthesis of polymerizable surfactants with two triple conjugate bonds', supervisors Prof. P. Tundo and M. Guaita.
After attending the Master Course Surface Chemistry and Colloids at the University of Bristol (UK) she obtained her **MSc** Degree, having passed the required examinations and discussed the experimental project 'Preparation and characterisation of organophilic montmorillonites', supervisor Prof. R. H. Ottewill. Continuing this scientific work as an external student, she obtained her **PhD** with the thesis 'Small Angle Neutron Scattering Study on Clay Systems', supervisor Prof. R. H. Ottewill.
After a period spent in industry (at the R&D of ENI SpA in Milano, Italy), she worked at the Department of Analytical Chemistry of the University of Turin as a post-doc within the framework of the Finalized Health Research Plan of the Piedmont Region. In 1992 she joined the Politecnico di Torino where she is currently Full Professor of Chemistry.
In 2019 she received the **Doctorate Honoris Causa** in Engineering by the Institut National Polytechnique de Grenoble (F).
She is nominated member of the scientific board of the Institut National Polytechnique de Grenoble (Conseil Scientifique) and of the national scientific board of the Institut de Chimie of CNRS of France (Conseil Scientifique d'Institut).

The scientific activity of Roberta Bongiovanni has been in the area of Polymer Chemistry, with particular interest in evaluating the relationship between structure and properties of these materials. The research work has also focused on the preparation and characterization of organic-inorganic composite or hybrid systems, containing in particular clay or micro- and nanostructured oxides, which were the main topic of her studies at the University of Bristol and her post-doc at University of Turin.
At present, her scientific activity mainly concerns:
- preparation of polymers with 'tailor-made' surfaces
- synthesis of new biobased oligomers and their polymerisation started by photochemical means; the chemical-physical, thermal, mechanical (and electrochemical) characterization of the polymers obtained
- preparation of composite materials made of a photocured matrix (eventually photoreversible) and natural fillers like clays and cellulosic fibres.
- electrospinning processes coupled with photoinduced reactions.

The results of her research are collected in 222 works published on peer-reviewed international journals. She is the author of 3 international patents and 5 Italian patents. Her H-index is currently 37 (self citations excluded, Scopus 30th September 2021).

She has attended national and international congresses, presenting over one hundred oral communications and posters. She has given numerous seminars by invitation in Italy and abroad.

During summer 2006, she was Visiting Scholar at the Rensslaer Polytechnic Institute in Troy, New York (USA), Department of Polymer Science, invited by Prof. J.V. Crivello.

In summer 2010, she was Visiting Researcher at the Bragg Institute, Australian Nuclear Science & Technology Organisation (ANSTO), Sydney (AUS).
In summer 2011 she was Professeur Invitè at the Institut National Polytechnique, Ecole Internationale du Papier, de la Communication Imprimée et des Biomatériaux in Grenoble (F), by invitation of Prof. D. Chaussy.

She serves as a referee for the following journals: Langmuir, J. of Colloid and Interface Science, Materials Chemistry and Physics, Polymer, Polymer International, European Polymer Journal, Advanced Materials, Nature Communications.

She is referee for the Marie Curie and FTI projects of the H2020 programme, she has been referee for the ISTC/STCU projects of the 6th EU Framework Programme. She served as evaluator for the French Research Agency (ANR) and for the Italian Research Ministry (MIUR), she is currently evaluating projects for the Polish National Science Center and for the Cyprus Research Promotion Foundation.

Organisation and management of research programmes
She was involved in research projects of the Italian Ministry of Scientific Research (PRIN 1999, PRIN 2005, PRIN 2007, FIRB 2001, FIRB 2003 as PI) and in two projects of the Piedmont Region (2005-2009).
She was Coordinator of the following international projects:
-Bilateral Italy-Morocco project with Rabat University (2004-06 - 'New Composite Materials made of a polymeric matrix and conductive fillers');
-Italo-British collaborative programme for research and higher education with Imperial College (BRITISH 2007-08 - 'Functionalisation of Cellulose For The Reuse Of Waste Paper In The Field Of Paper Making And Fabrication Of Composites');
-Nato Collaborative Research, Research Project with the University of Surrey (Reference No. CRG 970068, 2000-02 'Use of Spectroscopic Ellipsometry to Determine Compositional Profiles in Novel UV-Cured Films Containing Fluorine');
-Vigoni Italia-Germany project with the University of Munster (2010-12 - 'Synthesis and characterisation of polymeric membranes as electrolytes for Lithium batteries');
-Cooperlink project with the Beijing BUCT University (2011-13 - 'New polymeric materials for microfluidic devices').

She is Principal Investigator of the H2020-MSCA-RISE Project: 'Synthesis and photopolymerisation of new fluorinated macromonomers for the obtaining of high performance fluoropolymers' (PhotoFluo 2016-2020).

She is Principal Investigator of the H2020-MSCA-IF project 'Reversibly photocrosslinked BIO-based composites with barrier properties from industrial by-products' (ComBIOsites 2018-2020).

She is or has been leading research projects with Italian SMEs and large industries including Solvay, Pirelli Labs, Pirelli Prenumatici, PPG.

Teaching activities
- Organic Chemistry Fundamentals Course (6 credits, BSc Chemical Engineering and Material Engineering)
- Fibers: preparation, characterization and technology (6 credits, BSc Engineering School)
- Polymers and Radiation (4 credits, PhD course).

Up to now she has supervised 44 MSc students of Chemical Engineering and Materials Engineering, 10 PhD students, 6 post-doc. She is currently supervising two PhD students in Materials Science and Technology, co-supervising an international PhD student with the University of Montpellier, 2 post-doc, 5 internship students of different nationalities supported by the international Erasmus programme.

International teaching activities

From 2000 to 2003 she gave the course of Proprietes Mecaniques des Polymères (3 credits) at the J. Fourier University of Grenoble as part of the Master Polymères pour Technologies Avancées of the Italian French University (UFI).
Since 2003, the teaching assignment for the above-mentioned Master's degree (run by the University of Grenoble Alpes) is a course entitled Revêtements avancées (3 credits), which is held every year in the first semester (currently it is given in English to international students).

Other activities
She was appointed Technical Consultant for the Courts of Saluzzo (in 2002 and 2004) and Turin (in 2003 and 2004).
She is a member of the American Chemical Society (ACS).
She is a member of the Italian Association of Macromolecules Science and Technology (AIM), of which she has been a member of the Board of Directors for two years, and is currently Director of the Mario Farina School on polymeric materials, promoted every two years by the Association.

Languages

30 th January 2021