# Maila Castellano

Researcher

maila.castellano@unige.it
+39 3538706
+39 3538726

## Education and training

1999
### Ph.D in Chemical Science
Relations between structure and properties in reinforced elastomeric systems
University of Genova - Genova - IT

1995
### Master Degree in Chemistry
Molecular weight effect on to the crystallization of the polycaprolactone
University of Genova - Genova - IT

## Academic experience

2005 - ONGOING
### Assistant Professor
University of Genova - Genova - IT
Research didactics and management activities

## Language skills

### English
Independent

## Teaching activity
My actual teachings are:
-Industrial Chemistry 2 (6 CFU, Master Degree in in Industrial Chemistry)
-Properties of the polymer and polymeric composites (6 CFU, Master Degree in Science and Engineering of Materials)
-Recovery and recycling of polymeric materials (4 CFU, Bachelor Degree in Materials Science).
I am a member of the exam committee of various courses within the degrees in Chemistry and Chemical Technologies and Materials Science and in the master degrees in Industrial Chemistry and Science and Engineering of Materials.

## *Postgraduate research and teaching activity*

### Supervision of PhD students, residents and post-doctoral fellows

I have been supervisor of various students during their Master degree thesis.
I have been supervisor of various students during their fellowships:
AA.2010-2011: Chemical modification of natural rubber latex and fillers and their chemical-physical characterization;
AA2009-2010: "Use of ionizing radiation, photochemical methods and nanochemistry on materials and in the process of tire manufacturing within the MIUR FIRB ELASTORAD project (FIRB2006)
AA 2014-2015: Polydimethylsiloxane membranes preparation, by electrospinning technique, with aditions of suitable additives for photocatalytic applications, and their characterization.
AA 2014-2015: Development of polymer composites with inorganic reinforcement and their characterization..
I have been supervisor of students during ERASMUS + Learning Agreement for student mobility for traineeships per AA 2016/2017 with Edinburgh Napier University, School of Engineering and the Built Environment, Edinburgh, Scotland (UK):
AA 2016-2017: A microrheological study of biopolymer solutions and hydrogels.
I have been Tutor of Ph. D. Students:
AA 2017-2020: supervisor of candidate Dr.Andrea Dodero, Doctorate in Science and Technologies of Chemistry and Materials (XXXIII Cycle). Title of Ph. D thesis: Polysaccharide-based nanostructured materials for special applications
AA 2017-2020: supervisor of candidate Dr.ssa Elisabetta Brunengo, Doctorate in Science and Technologies of Chemistry and Materials (XXXIII Cycle). Title of Ph. D thesis: Engineered poly(vinylidene fluoride) based composites containing inorganic inclusions as smart materials for energy conversion and storage: process-structure-properties correlations. (co-supervisor: Dr.ssa Paola Stagnaro ISMAC-CNR Genova)

## *Research interests*

The research activity has been focused on the correlation between molecular structure and thermodynamic, mechanical, rheological and morphological properties of mono and multicomponent synthetic macromolecular systems.
In particular, present research lines include: functional polymeric materials, biomaterials, polymeric nanostructures, study of the physical properties, rheology and mechanical properties of polymers, surface modification and surface properties characterization of polymeric materials. More in detail, competences are related to: (i) the study of structure-property relationships in natural and synthetic polymers, copolymers and polymer blends to design new polymeric materials with physical properties aimed to specific

applications; (ii) rheological, mechanical, dynamic-mechanical, morphological, and thermal characterization of macromolecular systems; (iii) surface functionalization through chemical and physical methods and surface characterization of polymeric materials; (iv) use of the electrospinning technology to produce innovative nanostructured porous materials
I published 50 papers on international journals (Scopus:h-Index 13) and I have more than 95 conference comunications

## *Editorial activity*

I'm reviewer in the following scientific journals:European Polymer Journal; Journal of Applied Polymer Science;  Industrial and Engineering Chemistry and Research, Journal of Polymer Science Part B:Polymer Physics; Macromolecular Materials and Engineering; Carbohydrate polymers; Polymers for Advanced Technologies; Polymer Engineering and Science.