



# Camilla Fusacchia

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Date of birth: 04/08/1998 Nationality: Italian

## WORK EXPERIENCE

[ 15/12/2022 – Current ]

### Research fellow

**Istituto di Scienza Tecnologia e Sostenibilità per lo Sviluppo dei Materiali Ceramici, ISSMC-CNR**

**City:** Faenza (RA)

**Country:** Italy

## EDUCATION AND TRAINING

[ 05/10/2020 – 24/10/2022 ]

### Master's Degree in Materials Science

**Università degli studi di Torino, Scuola di Scienze della Natura, Dipartimento di Chimica**

**City:** Torino (TO)

**Country:** Italy

**Final grade:** 110 L /110

**Thesis:** Experimental thesis: Synthesis and characterization of Cu-functionalized nanohydroxyapatites

[ 07/03/2022 – 24/10/2022 ]

### Internship Laboratory

**Università degli studi di Torino, Scuola di Scienze della Natura, Dipartimento di Chimica**

**City:** Torino (TO)

**Country:** Italy

Main activity: Preparation of nanohydroxyapatites with a co-precipitation method. Cu-functionalization of nanohydroxyapatites with ion-exchange method. Characterization of nanoparticles by X-ray Powder Diffraction (XRPD), Transmission Electron Microscopy (TEM), Fourier Transform Infrared spectroscopy (FTIR), UV-vis-NIR spectroscopy and low temperature N<sub>2</sub> adsorption (determination of SSA by BET model).

[ 06/09/2021 – 11/02/2022 ]

### ERASMUS + Project

**École nationale supérieure d'ingénieurs de Caen (ENSICAEN)**

**City:** Caen

**Country:** France

Acquisition of 20 ECTS with a grade point average of 29/30. Deepening on Functional and Structural Ceramics Materials and on Transmission Electron Microscopy technique.

[ 03/10/2017 – 17/07/2020 ]

### Bachelor's Degree in Science and Technology of Materials

**Università degli studi di Torino, Scuola di Scienze della Natura, Dipartimento di Chimica**

**City:** Torino (TO)

**Country:** Italy

**Final grade:** 110 L /110

**Thesis:** Thesis: Il titanio come biomateriale in impianti dentali (Titanium as biomaterial in dental implants)

[ 09/2012 – 07/2017 ]

### High School Diploma

**Istituto Tecnico Industriale Statale "Mario Delpozzo"**

**City:** Cuneo (CN)

**Country:** Italy

**Final grade:** 88/100

## PARTECIPATION IN PROJECTS

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### PRIN 2020 - 202085RFNY "AppliCare -Antimicrobial peptides loaded inhalable calcium phosphates nanoparticles for the counteraction of antibiotic resistance: towards a new therapy for respiratory infections"

Project aim: development of innovative inhalable calcium phosphate nanoparticles for treatment of antibiotic-resistant infections. Synthesis and characterization of calcium phosphate nanoparticles with tailored physicochemical properties functionalized with suited peptides designed to have strong antibacterial activity. In vitro and in vivo testing of the best candidates towards the treatment of cystic fibrosis.

## POST-GRADUATED COURSES AND SCHOOLS

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[ 19/06/2023 – 23/06/2023 ] **National School of Physical Chemistry, Verbania (VB), Italy**

Frontiers in Materials Physical Chemistry: Nanostructures and Nanomaterials

Organizer: University of Piemonte Orientale (NanoMAT group of DISIT department), University of Genova (nM<sup>2</sup>-Lab group of DCCI department) and Institute of Structure and Matter (ISM-CNR)

[ 03/2023 – 05/2023 ] **Official GMSL S.r.l. inter-company courses: Minitab software**

Introduction to the main mathematical, statistical or qualitative research techniques. Application using appropriate Minitab software, focusing on Design of Experiment approach

Attended courses:

-Fast Learning of Essential I: focused on descriptive statistics and then on inferential statistics by analyzing several tests aimed to validate data and assumptions.

-Fast Learning of Essential II: Introduction to Analysis of Variance (ANOVA) and to regression methods.

-Factorial Designs: development of the necessary skills to achieve efficiently and effective experimental objectives, to reduce variability within a process, accelerate research and development projects, improving products and processes, and identifying critical factors that significantly affect the response variables.

-Formulations and Mixture designs: principles of experimental design used in mixing processes typical of chemical/pharmaceutical and food & beverage industries

## **PRESENTATIONS AT CONFERENCES AND SCHOOLS**

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[ 19/06/2023 – 23/06/2023 ]

### **Poster presentation at the National School of Physical Chemistry, Verbania (VB), Italy**

*Growth of oriented apatite nanocrystal arrays with bactericidal properties.* Camilla Fusacchia, Lorenzo Degli Esposti, Davide Altamura, Riccardo Torelli, Francesca Bugli, Alessio Adamiano, Maurizio Sanguinetti, Cinzia Giannini, Michele Iafisco

[ 18/10/2023 – 20/10/2023 ]

### **Poster Presentation at the 2023 edition of CNR-DSCTM conference, Sestri Levante (GE), Italy**

*Extraction Of Calcium Phosphate And Collagen From Fish Industry By-Products: A Design Of Experiment Approach.* C. Fusacchia, S. Gandolfi, L. Degli Esposti, S. Panseri, A. Adamiano, C. Piccirillo, S. Manfredini, P. Ziosi, A. Vitali, T. Sibillano, C. Giannini, M. Iafisco

## **LANGUAGE SKILLS**

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**Mother tongue(s):** Italian

**Other language(s):** English (Advanced, B2) , French (A1-A2)

## **DIGITAL SKILLS**

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Microsoft Office ( Word , Excel and Power Point ) | OriginLab data analysis and graphing software | OPUS spectroscopy software

## **PROFESSIONAL SKILLS**

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### **Analytical techniques/instruments**

Fourier-Transformation Infrared Spectroscopy (FTIR), Dynamic Light Scattering (DLS, Z-potential), High Performance Liquid Chromatography (HPLC)

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