



Dr. Lorenzo Degli Esposti

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CV:

Education: 2019, PhD in Materials Science and Technology at the Institute of Science and Technology for Ceramics (ISTEC CNR) and the University of Parma.

Professional experiences:

09/2023 – current:

Fixed-Term Researcher (III Level) at the Institute of Science, Technology and Sustainability for Ceramics (ISSMC CNR) within the NextGenerationEU – Italian PNRR research project CN00000041

11/2022 – 08/2023: Postdoctoral Research fellow at the Institute of Science, Technology and Sustainability for Ceramics (ISSMC CNR).

11/2019 – 11/2022: Research Fellow at the Institute of Science and Technology for Ceramics (ISTEC CNR) within the research project "BIOBOS"

Research field:

Synthesis and characterisation of calcium phosphate nanomaterials for application in medical, environmental, agricultural and cosmetic field.

Publications: 48 peer-reviewed scientific articles published on international journals, 1 patent

Congress contributions: several oral and poster presentations at national and international meetings (2 invited)

Awards:

2023: Translational Award for the best contribution at the "33th Annual Conference of the European Society for Biomaterials – ESB 2023".

2022: Best Oral Presentation Award for young researchers at the "BioMaH - Biomaterials and Novel Technologies for Healthcare, International Conference".

Thursday, March 14th, 2024

Aula 1 -14:30

Teams code: ngiw5mq

What means to study a nanomaterial: challenges of nano-size

Abstract

Nanomaterials are being proposed as next-generation materials to tackle the modern challenges in health and many other fields thanks to their unique properties given by their nanometric dimensions. However, the nano-size poses also unique challenges to scientists in terms of material handling, characterization, and design towards application. The seminar will provide an overview on practical aspects in the study of nanomaterials, ranging from regulatory point of view to characterization and manipulation of nanostructured materials, as well as discussing the fundamental studies needed to be performed in case of health application.

Friday, March 15th, 2024

Aula 5 - 9:00

Teams code: ngiw5mq

Biom mineralization - formation of crystals by living organisms and what we can learn for materials science

Abstract

Biogenic materials often have superior properties in comparison to human-made ones, and for this reason are studied and replicated by the biomimetic materials research. The seminar will discuss the basics of biomineralization, which are the processes with whom living organisms form crystals leading to highly functional complex and hierarchically organized materials thanks to a strict, multi-functional control on crystal formation and growth. From there, it will be also discussed the biomimetic crystallization, where biomineralization is mimicked to generate new advanced crystalline materials.