Università di Genova

Omar Ginoble Pandoli

Associate Professor

EDUCATION AND TRAINING

May 2008
PhD in Pharmaceutical Science (XX cycle)
Supramolecular Hybrid organic-inorganic multicomponent architectures in solution and on the surface.
Alma Mater Studiourm - University of Bologna, Italy.

March 2003
Single-cycle Degree Course in Pharmaceutical Chemistry and Technology (5 years), with the vote of 110/110 cum laude
Synthesis and characterisation of new photoresponsive materials.
Alma Mater Studiourm – University of Bologna, Italy.

June 1996
Diploma di Maturità Tecnica Industriale di Perito Industriale in "Chimica Sperimentale" 60/60
Istituto Tecnico Industriale Statale (ITIS) "E. Alessandrini", Teramo, Italy.

ACCADEMIC EXPERIENCE

March 2025 up today
Associate Professor of organic chemistry
Professor of organic chemistry for the degree course in Pharmacy, Organic Chemistry II, and Physical Methods in Organic Chemistry for the degree course in CTF.
University of Genoa, Department of Pharmacy, Italy.

March 2022 – March 2025
Full-researcher (RTD-B) of organic chemistry
Professor of organic chemistry for the degree course in Pharmacy,
University of Genoa, Department of Pharmacy, Italy.

May 2012 – February 2022
Assistant Professor (4 years) and Adjunct Professor (6 years) of organic chemistry
Professor of Organic Chemistry, Organic Chemistry Laboratory, for the degree course in Chemistry.
Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio), Chemistry Department, Brazil.

July 2009 - June 2011
Post-doc fellow of the European Commission "Science and Technology Fellowship Programme".
Synthesis of chiral silver and gold nanoparticles. Design and fabrication of microfluidic reactors for organic and inorganic chemical synthesis.

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Shanghai Joao Tong University, Dept. of Micro-Nano Science and Engineering, Institute of Micro-Nano Science and Technology, Cina.

July 2008 – June 2009
Researcher Fellow (Post-Doc)
Functionalized silicas and their use as chromatographic separation media and as supports for continuous flow reactions
University of Ferrara, Chemistry Department, Italy.

November 2006 – October 2007
Researcher Fellow (Post-Doc)
Functionalization of guanosine derivatives with electro- and photoactive groups and characterization of their supramolecular architectures
University of Bologna, Department of Inorganic and Physical Chemistry, Italy.

July 2004 – June 2005
Researcher Fellow (Post-Doc)
Preparation of supramolecular architectures and molecular switches
University of Bologna, Department of Organic Chemistry, "A. Mangini", Italy.

Settembre 2003 – Marzo 2004
Post-Laurea Fellow
Synthesis of organic push-pull materials for nonlinear optics (ONL).
University of Saragozza, Department of Chemistry, Spain.

EXPERIENCE

MAIN SEMINARS

29 Nov - 02 Dic 2022
Keynote speaker: *New chemical and electric bamboo-based biomaterial: a new insight into advanced functional material.*
International Congress Bamboo (ICB), São Paulo, Brazil.

10-14 Set 2023
Oral presentation: Bamboo-Based Lignocellulose Biomass As Catalytic Support For Organic Synthesis
Simposio di Chimica Organica della SCI, Rome, Italy.

27-28 Nov 2023
Oral presentation: Natural bamboo-based microreactor for CuAAC reactions and 3D conductive monolithic pyrolyzed bamboo for microfluidic heating system.
Italian Flow Chemistry Symposium (IFCS), Milan, Italy.

24-25 Giu 2023
Oral presentation: *Characterisation of persistent free radical (PFR) by electron paramagnetic resonance in bamboo-derived biochar for methylene blue degradation in a column-packed flow system*
International Symposium on Carbon for Catalysis (10th CarboCat), Florence, Italy.
https://www.carbocat10.eu

01-06 Sett 2024

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Oral presentation: Sustainable production of bamboo-based carbons for anode lithium Battery.
International Symposium on Beyond Li-Ion Batteries 2024 (BeLi24), Padova, Italy.
https://projects.dii.unipd.it/beli24/

SCIENTIFIC RESPONSIBILITY FOR RESEARCH PROJECTS ACCEPTED FOR FUNDING BASED ON COMPETITIVE CALLS INVOLVING PEER REVIEW

February 2018 – January 2019
Coordinator (Principal Investigator, PI): development of chemical, electrical, and electrochemical devices based on lignocellulosic biopolymers derived from bamboo.
Financial support: Istituto Serrapilheira, Brazil.

September 2019 – September 2021
Coordinator (PI) of the project: Photocatalytic micro- and mesoreactors with plasmid effects of metal Al, Ag and Au for photodegradation of organic compounds.
Financial support: Fundação Amparo de Pesquisa do Estado do Rio de de Janeiro (FAPERJ), Brazil.

November 2019 – November 2021
Coordinator (PI) of the project: Fabrication of lignocellulosic microreactors: a bio-nanocomposite of bamboo with catalytic metal nanoparticles (Cu, Pd) for organic reactions in continuous flow
Financial support: FAPERJ, Brazil.

September 2020 – December 2024
Coordinator (PI) of the project: Bambootronics: Lignocellulosic chemical, electrical and electrochemical devices from bamboo biomass.
Financial support: FAPERJ, Brazil.

October 2020 – December 2022
Coordinator (PI) of the project: Solid-State NMR studies for Bambootronics devices.
Financial support: Pan-European solid-state NMR Infrastructure for Chemistry-Enabling Acess (PANCEA) con acesso all'unità operativa Consorzio Interuniversitario Risonanze Magnetiche di Metallo Proteine (Firenze, IT).

October 2023 – December 2025
Coordinator (PI) of the project: SUstainable and SelecTive conversion of CARBohydrates from Biomass into fine chemicals (SUST-CARB)".
Financial support: MUR-RPIN (progetto Coordinato dal Prof. Luca Banfi), Italy.

TEACHING OR RESEARCH POSITIONS (FELLOWSHIPS) AT FOREIGN UNIVERSITIES AND RESEARCH INSTITUTES

From 2012 to 2022
Responsible for the courses in Organic Chemistry I, Organic Chemistry II, Analysis in Organic Chemistry, Spectroscopic Methods in Organic Chemistry, Organic Chemistry Laboratory and General Chemistry Laboratory.
Pontìficia Universidade Católica do Rio de Janeiro (PUC-Rio), Brazil.

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ACADEMIC PATENTS

February 2013 Granting of Italian patent n. IT1398243-B
Patent : Method of immobilizing an organic catalyst and use of the catalyst in chemical reactors and processes.
The invention relates to a method of immobilizing an organic catalyst on a chemically inert solid material, comprising a functionalization step for the organic catalyst and a functionalization step for the solid material through a pair of complementary chemical functionalities. A peculiarity of the invention is that the pair of complementary chemical functionalities is of a type capable of establishing a covalent chemical bond between the organic catalyst and the solid material in the absence of metallic elements.
Owner of the invention: University of Ferrara, Italy.
Inventors: Alessandro Massi, Omar Ginoble Pandoli, Alberto Cavazzini, Luisa del Zoppo, Pier Paolo Giovannini e Claudia Bendazzoli.

March 2023 Granting of Brazilian patent n. BR 10 2019 003286
Patent: The invention relates to the natural bamboo cutting and treatment process, lignocellulosic device, catalytic deposition process and a lignocellulosic catalytic microreactor.
Owner of the invention: Pontificia Universidade Católica do Rio de Janeiro (PUC-Rio), Brazil.
Inventors: Omar Ginoble Pandoli, Druval Santos de Sà , Khosrow Ghavami.

January 2025 Granting of Brazilian patent n. BR 10 2019 017954-6
Patent: The invention relates to a Colloidal metal ink deposition process for a microfluidic heater, a colloidal metal ink deposition process for an electrochemical sensor, a microfluidic heater, an electrochemical sensor and the use of a microfluidic heater.
Owner of the invention: Pontificia Universidade Católica do Rio de Janeiro (PUC-Rio), Centro Nacional de Pesquisa em Energia e Matérias (CNPEM), Campinas, Brazil.
Inventors: Omar Ginoble Pandoli, Murillo Santhiago, Matthias Kraus.

December 2023 Pending Brazilian patent n. BR 10 2023 027026-3
Patent: The invention relates to a Pyrolysis transformation process of natural bamboo lignocellulosic biomass, a 3D monolithic conductive/resistive material as a microfluidic device for heating and vaporising fluids and its use.
Owner of the invention: Pontificia Universidade Católica do Rio de Janeiro (PUC-Rio), Brazil.
Inventors: Omar Ginoble Pandoli, Sidnei Paciornik, Mario B. J. Nogueira, Druval Santos de As,