BARBARA MECHERI
Curriculum Vitae

Researcher ID

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Current Position:

2019: Associate Professor of Chemical Foundations of Technology, University of Rome Tor Vergata

Education:

2004: Ph.D. in Materials Science, University of Catania.
2000: Master Degree in Chemistry, University of Florence.

Previous academic position:

2004: Visiting Post Doc Researcher at RCAST, University of Tokyo (Japan), under the frame of the Italy-Japan Joint Lab between the University of Tokyo and the University of Rome Tor Vergata.

2006: Adjunct Professor and Post Doc Researcher, Department of Chemical Science and Technologies, University of Rome Tor Vergata.

2016: Assistant Professor (RTD-b tenure track) at the Department of Chemical Science and Technologies of the University of Roma Tor Vergata.

Qualifications

2018: Qualified as Full Professor for the scientific area 03/B2 "Chemical basis of technology applications"

Teaching

2006 –present **Chemistry**; Faculty of Engineering, University of Rome Tor Vergata
2010-present **Chemistry for Energy**; Faculty of Engineering and Applied Chemistry, University of Rome Tor Vergata
2007-present: Advisor or Co-advisor of Master Degree theses (5) and Ph.D. thesis (8) of the International Ph.D. Program in Materials for Environment and Energy, University of Rome Tor Vergata
2012- present: Tutoring activity in Erasmus (2011), Scienza Senza Frontiera (2014), and Iranian Ministry of Science, Research and Technology Programs
2016-present Member of the Teaching Supervising Committee of the International Ph.D. Program in Materials for Health, Environment and Energy, University of Rome Tor Vergata

Research

Electrochemistry of energy conversion and storage devices: structure and transport properties in polymer electrolytes; development of electrocatalysts based on nanostructured carbon; development of materials and components for advanced redox flow batteries; bioelectrochemical systems for energy production and waste management.

Memberships

Member of the following professional organizations: Electrochemical Society; Brazilian Materials Reasearch Society; Italian Association of Chemistry for Engineering; The Italian Chemical Society.

Peer Review Activity

Peer Review for: Journal of the Electrochemical Society, Materials Chemistry and Physics, Materials for Renewable and Sustainable Energy, Electrochemistry Communications, Energy & Environmental Science, Journal of Power Sources, Journal of Nanoparticle Research, International Journal of Hydrogen Energy, Electrochimica Acta, Journal of Applied Electrochemistry, ACS Applied Materials & Interfaces, Sustainable Energy and Fuels, Applied Catalysis B, Biotechnology Advances.

Organization and Board of Scientific Meetings

VI National Workshop AICIng (Rome - Italy, 22-23 June 2015) - Organization Committee.
HYCELTEC 2015 - V Iberian Symposium on Hydrogen, Fuel Cells and Advanced Batteries, July 5-8th 2015, Tenerife, Spain - Scientific Committee.
HYCELTEC 2017 - VI Iberian Symposium on Hydrogen, Fuel Cells and Advanced Batteries, June 19-23th 2017, Porto, Portugal - Scientific Committee.

Editorial Responsibilities

Catalysts — Open Access Journal (ISSN 2073-4344; CODEN: CATACJ) published by MDPI; *Member of the Editorial Board (since 2018).*
Special Issue in Catalysts: Catalysts for Microbial Fuel Cells, *Guest Editor* (2018-2020)
Electrocatalysis (specialty section of Frontiers in Catalysis): *Review Editor on the Editorial Board (since 2020).*

National Grants

2017 FFABR: Fondo per il finanziamento delle attività base di ricerca. Individual grant by MIUR.
2018 SESPOLY - Stoccaggio di energia sostenibile: separatori di polimeri di nuova generazione per batterie di flusso Redox, Progetti di Ricerca Scientifica di Ateneo 2016 "MISSION: SUSTAINABILITY", University of Rome Tor Vergata **(**Principal Investigator)

Participation to funded Research Projects since 2008

2018 Ager Consortium "BioVale: Biorefinery for the Valorization of Wine Waste"."
2016 GREENERNET: Advanced Flow Battery Energy Storage Systems in a Microgrid Network, European Union, Grant Agreement n: 720367—H2020-FTIPilot-2015-1/H2020-FTIPilot-2015-1
2011 Ager Consortium "Valorisation of winemaking by-products and waste by application of innovative technologies for extraction of natural products of high added value"
2011 META European Union: International Research Staff Exchange Scheme META Materials Enhancement for Technological Applications
2010 PRIN MIUR (Ministero dell'Istruzione dell'Università e della Ricerca) "Advanced nanocomposite membranes and innovative electrocatalysts for durable polymer electrolyte membrane fuel cells,NAMED-PEM"
2010 FILAS-POR FILAS-POR (Piano Operativo Regionale) Sustainable hydrogen production and waste treatment via MEC technology".
2010 MATTM MATTM (Italian Ministry for the Environment), Development of MEC-based devices for the production of bio-hydrogen
2008 PRIN MIUR (Italian Ministry for University and Research) "PC-SOFCs, Protonic Conductors Solid Oxide Fuel Cells based on nanostructured proton conductors: from materials synthesis to prototype fabrication"
2008 TOYOTA: Toyota sponsored joint Laboratory with the University of Tokyo Nanostructured Materials for Environment and Energy

2008 CARISMA European Union: CARISMA Coordination Action for Research on Intermediate and high temperature Specialised Membrane electrode Assemblies..
for multiphotonic applications via assembling of nanostructured molecular units".
2008 PRIN MIUR (Italian Ministry for University and Research) "PC-SOFCS, protonic conductors solid oxide fuel cells based on nanostructured proton conductors: from materials synthesis to prototype fabrication"

Scientific collaborations

Prof. Ana Tavares, Energy, Materials and Telecommunications Center of Institut National de la Recherche Scientifique (INRS-EMT), University of Québec, Varennes, QC, Canada.
Dr. Barbara Lonetti, CNRS-Université Paul Sabatier, Toulouse, France.
Prof. Masaru Miyayama, Research Center for Advanced Science and Technology (RCAST), The University of Tokyo, Japan.
Prof. Steve Greenbaum, Hunter College in The City University of New York (CUNY), New York, NY, US.
Prof. Patricia T. Campana, Molecular e Espectroscopia, Escola de Artes, Ciencias e Humanidades, Universidade de Sao Paulo, Brazil.
Prof. M. Aziz, School of Engineering and Applied Science, Harvard University, Cambridge, MA, US.
Dr Maria J Lazaro Elorri, Instituto de Carboquimica, Consejo Superior de Investigaciones Cientificas, Zaragoza, Spain
Prof. A. Bentien, Department of Engineering, Aarhus University, Aarhus, Denmark
Prof. Plamen Atanassov, The Henry Samueli School of Engineering, University of California, Irvine, US.
Prof. Mir Reza Majidi, Faculty of Chemistry, University of Tabriz, Iran.
Prof. Hitoshi Ohnuki, Tokyo University of Marine Sci. & Tech., Applied Physics lab, Tokyo, Japan.
Prof. Paula Colavita, School of Chemistry, Trinity College of Dublin, Ireland.
Active collaborations with research groups from various Italian Universities and Departments of the University of Rome Tor Vergata.

Scientific Production

Co-author of 90 publications (among which 84 papers published in International scientific journals indexed in ISI Web of Science and SCOPUS and 6 contributions in book chapters) and over 80 contributions to national and international conferences. Her papers have been cited 1771 times and her H index is 24 (source: www.scopus.com, Author ID: 6602426285, 21/08/2021).
Self-updating publication list: https://orcid.org/0000-0002-1458-6239.