

CURRICULUM VITAE

Isabella NICOTERA

PERSONAL INFORMATION

Family name, First name: **Nicotera, Isabella**

Nationality: *Italian*

URL for web site:

https://www.unical.it/storage/teachers/gAAAAABkqZbySlpUR36kmUXL99ohu_3juyiej6UP7FmfzL_1GzJVaxXq6ci270EjnL-UaKsmSJ0_IYUrWRNtLqfPsVmB-drXA==/

<https://pcamlab.ctc.unical.it/group-members/professor/isabella-nicotera>

Researcher unique identifiers **ORCID ID: 0000-0002-4411-0573;** **SCOPUS ID: 6603643288**

EDUCATION

- 1998: Laurea Summa cum Laude in Chemistry, University of Calabria.
- 1999/2002: PhD in Chemical Science, University of Calabria. Title of dissertation "Development and characterization of solid polymer electrolytes for lithium battery technology".
- 2000: PhD research period (*six months*) at the Centre for Materials Research, School of Physics, University of Kent, Canterbury (UK).

CURRENT POSITION

- **Associate professor** (Academic Discipline: Area 03 – Chemistry, CHIM/02- Physical Chemistry), Department of Chemistry and Chemical Technologies (Dept. CTC), University of Calabria (UNICAL).
- **Responsible** of the research laboratory **PCAM-Lab** (Physical Chemistry and Applied Materials Laboratory).

PREVIOUS POSITIONS

2008-2017 Researcher (Academic Discipline: Area 03 – Chemistry, CHIM/02- Physical Chemistry), Dept. CTC - UNICAL

FELLOWSHIPS AND AWARDS

- 2000 PhD research period at the Centre for Materials Research, School of Physics, University of Kent, Canterbury (UK).

2003/2007 Postdoctoral Researcher at Dept. CTC - UNICAL.

- 2005/2006 Postdoctoral Research Associate at Department of Physics, Hunter College, CUNY (City University of New York), NY, USA.
- 2014 *Visiting Researcher* (3 months) at Department of Physics, Hunter College, CUNY (City University of New York), NY, USA.
- 2020 (1-6 July) *Visiting Professor (Erasmus + program)* to University of Coimbra for teaching to Bachelor; Master and Doctoral students.

RESEARCH

Prof. Isabella Nicotera is responsible of the PCAM-Lab (Physical Chemistry and Applied Materials Laboratory). Her main research topic concerns the Energetics sector, specifically materials for conversion and electrochemical energy storage devices, with particular reference to hydrogen and lithium (fuel cells, electrolyzers, batteries). The scientific knowledge focuses on the synthesis and evaluation of new materials, hybrid and nano-structured, aimed at the development of polymer electrolyte membranes for fuel cells and for solid state batteries and for catalysts/electrodes.

MAIN BIBLIOGRAPHIC DATA

She is co-author of over 108 publications on international refereed journals, 3 chapters of books and over 80 contributions to national and international Conferences (several invited talk and keynote).

Bibliometric data (from Scopus, on July 2023): h-index 29, citations: 2660.

REASERCH PROJECTS (in the last 10 years)

- 2011-2014: PON-APQ (cod. PON01_01840), *Participant* in the project "Program of Renewable Energy and Micro-Cogeneration for Agro-Industry – Microperla".
- 2013-2015: PRIN *Unit Responsible* "Advanced nanocomposite membranes and innovative electrocatalysts for durable polymer electrolyte membrane fuel cells, NAMED-PEM".
- 2012-2014: Project "PONA3_00370 - *Participant* in the project "Materials, Technologies and Advanced Research" – MaTeRiA.
- 2018-2020: *Participant* in the project "Sorgente Thomson Backscattering per la ricerca applicata nel sud Europa" - STAR_2.
- 2018-2021: PON-Project 2018-2021 (ARS01_01259) *Participant* in the project "Community Energy Storage" – ComESto.
- 2020-2021: PON-Project (ARS01_00682) *Participant* in the project "ARES - Robotica autonoma per la nave estesa".
- 2020-2023: M-ERA.NET 2019 *Unit Responsible* for the project "Innovative nanostructured materials and smart textile electrodes for new generation of batteries and supercapacitors" – INNENERMAT.
- 2020-2022: FISR2019_01294, *Participant* in the project "Membrane alcaline e catalizzatori privi di metalli del gruppo del platino per dispositivi elettrochimici aperti di nuova generazione per l'immagazzinamento e la conversione di energia" – AMPERE.

TEACHING ACTIVITIES

She has been teaching for various courses since 2004 at the University of Calabria. She currently teaches the following courses:

- Chimica Fisica (9 ECTS) (CdS –Triennale in Scienza dei Materiali Innovativi e per le Nanotecnologie-Dip Fisica, UNICAL);
- Energy Materials and Devices (6 ECTS) (CdS Magistrale in Chimica-, UNICAL)

She was tutor and supervisor for numerous Bachelor's and Master's thesis in Chemistry and Materials Science.

VISITING PROFESSOR

- University of Coimbra (Portugal), teaching mobility within Erasmus+ Program, from 1 to 6 July 2019;
- Technion (Haifa-Israel), Department of Chemical Engineering, within the TE.M.A. project, from 1 to 15 May 2023

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

In the last 10 years she was the scientific coordinator of 6 PhD students (from XXV to XXXVI cycle) and several postdoctoral fellows on themes concerning materials for energy conversion and saving, in particular Polymer Electrolyte Fuel Cells and Lithium batteries.

Currently, she is the responsible of 1 RTDA, 2 post-doc, 1 research fellowship and 1 PhD student.

INSTITUTIONAL RESPONSIBILITIES

- 2012/13: Commission Member for the first Re-examination Report of the Degree in Chemistry at UNICAL.
- 2013/14: Research Commission Member at Dept. CTC – UNICAL.
- 2016/17: Departmental board member (*membro di giunta*) at Dept. CTC – UNICAL.
- 2008-2012: Academic Board Member of the Doctoral School in Science and Technology "Bernardino Telesio", UNICAL.
- Since 2013: Academic Board Member of the Doctoral School of Science and Physical, Chemical and

Materials Technologies, UNICAL.

- Since 2020: Member of the “16 exclusive teachers” College of the Doctoral School of Science and Physical, Chemical and Materials Technologies, UNICAL.
- 2018-current: Research Commission Member at Dept. CTC – UNICAL.
- 2020 Commission Member for the Re-examination Report (Rapporto di Riesame) of the Degree in Material Science, Dept. of Physics, UNICAL.
- Since 2021: Delegate to Public Engagement and Third Mission for Dept. CTC – UNICAL.
- Since 2021: PQA (Presidio Qualità di Ateneo) Member for Dept. CTC – UNICAL.
- 2022: Vice-coordinator of "CONSIGLIO DI COORDINAMENTO DEL CORSO DI LAUREA IN SCIENZA E INGEGNERIA DEI MATERIALI" Unical.

COMMISSIONS OF TRUST (from 2010)

- 2010: Member of the Examining Commission for the 25th cycle of the PhD School in Science and Technology Bernardino Telesio.
- 2013-October: Member of the Examining Commission for the selection of n. 1 post-doc research grant (SSD Chim02) for the PRIN-2010 “NAMED-PEM” project.
- 2014-October: Member of the Examining Commission for the selection of n. 1 post-doc research grant (SSD Chim02) for the "Micropella" PON-project.
- 2015-October: Member of the Examining Commission for the selection of n. 1 post-doc research grant (SSD Chim02) at Dept. CTC-UNICAL.
- 2016-December: Member of the Examining Commission for the selection of n. 1 post-doc research grant (SSD Chim02) at Dept. CTC-UNICAL.
- 2018-December: President of the Examining Commission for the selection of n. 1 post-doc research grant (SSD Chim02) PON-project “ComESTo”, at CTC-UNICAL.
- 2020-December: President of the Examining Commission for the selection of n. 1 post-doc research grant (SSD Chim02) MeRanet-project “INNENERMAT”, at CTC-UNICAL.
- 2020-December: President of the Examining Commission for the selection of n. 1 fellowship research grant MeRanet-project “INNENERMAT”, at CTC-UNICAL.
- 2021-April: Member of the Selection Committee for the Evaluation of the Final Examination for the PhD in "Civil and Industrial Engineering" - XXXIII cycle, at the University of Calabria.
- 2021-Oct/Dec: Member of the Examining Commission for the selection of n. 1 RTDA position (SSD Chim02) at CTC-UNICAL.
- 2021-Oct/Dec: Member of the Examining Commission for the selection of n. 1 RTDA position (SSD Chim02) at the Department of Chemistry, University of Rome “La Sapienza”.
- 2021-Oct/Dec: Member of the Examining Commission for the selection of n. 1 RTDB position (SSD Chim02) at the Department of Chemistry, University of Pavia.
- 2022: Member of the Selection Committee for the evaluation of the Final Examination for the PhD in “Scienza e Nanotecnologia dei Materiali” Università Milano-Bicocca.
- 2022: Member of the Selection Committee for the evaluation of the Final Examination for the PhD in Materials Science and Nanotechnology - XXXIV – XXXV, Università di Catania.

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

- Member of the interuniversity Consortium on Materials Science and Technology (INSTM).
- Member of the Italian Chemical Society (SCI):
 - Division of Physical Chemistry
 - Division of Electrochemistry
 - Interdivisional Group of Chemistry for Renewable Energies - ENERCHEM.
- Member of the Italian Group for Electrochemical Energy Storage - GISEL (www.giselnetwork.it).

- Member of the International Society of Electrochemistry (ISE).

ORGANISATION OF SCIENTIFIC MEETINGS

- Delegate of the Electrochemical Division at the XXV National Congress of the Italian Chemical Society (SCI 2014), 7-12 September 2014, Rende (CS).
- Member of the organizing committee of the Symposium E2 "Batteries and Supercapacitors" at the European Congress and Exhibition on Advanced Materials (EUROMAT-2017), 17-22 September 2017, Thessaloniki, Greece.
- Member of the scientific committee for the E-MRS fall meeting, symposium on "BATTERY AND ENERGY STORAGE DEVICES".
- Member of the Scientific Committee for the First Italian workshop on Energy Storage (virtual meeting on online platforms) organized by GISEL. February 24-26, 2021.
- Member of the Scientific Committee for the "Italian Virtual Workshop on Fuel Cells", March 16-19, 2021.
- Member of the Scientific Committee for the XIII Convegno Nazionale INSTM, Sestriere (TO), Italy. January 23-26, 2022.
- Member of the Scientific Committee for the Second Italian Workshop on Energy Storage (IWES 2023), organized by GISEL. January 25-27, 2023.

COORDINATION OF ACADEMIC ACTIVITIES

- Coordination of the event "Notte dei Ricercatori", edition 2022 for the Dept. CTC – UNICAL.

EDITORIAL BOARD ACTIVITIES

- Advisor Editorial Board for the Journal "Materials for Renewable and Sustainable Energy", Springer (<https://www.springer.com/journal/40243/editors>).
- Editorial Board Members for Applied Science (MDPI) and Editor for the Special Issue "Advanced Materials for PEM-Based Fuel Cell Systems".
- Review Editor on the Editorial Board of Electrochemistry, specialty section of Frontiers in Chemistry.
- Associate Editor Board of Frontiers in Chemistry (section of Electrochemistry)

PEER-REVIEWER activities

- She performs peer review activities for numerous international journals
- She performed peer review activities for research funding applications:
 - *Estonian Research Council (2020)*
 - *Call for projects IDEX Université Grenoble Alpes-Cross Disciplinary Program (CDP) – 2017*
 - *Call FARE Ricerca in Italia: Framework per l'attrazione ed il rafforzamento delle eccellenze per la Ricerca in Italia (2021).*
 - *Israeli Ministry of Innovation, Science and Technology*