

Curriculum vitae MARIA ASSUNTA NAVARRA

<https://orcid.org/0000-0002-9244-878X>

<https://www.chem.uniroma1.it/en/department/people/maria-assunta-navarra>

EDUCATION

2002: Master degree Chemistry, 110/110 lode

2006: PhD Materials Science

ASN:

- associate professor of Physical Chemistry, 03/A2 (2012, 2013, 2016), Chemistry for Technologies, 03/B2 (2012, 2013, 2016), Inorganic Chemistry, 03/B1 (2016);
- full professor of Physical Chemistry, 03/A2 (2016), Inorganic Chemistry, 03/B1 (2016)

CURRENT POSITION

Associate Professor of Physical Chemistry (CHIM/02), Chemistry Department of Sapienza University of Rome.

PREVIOUS POSITIONS

2019-2022: 3-year Researcher at Sapienza University of Rome – Department of Chemistry (RTD-B, according to the Italian Law n.240/2010, art. 24, comma 3, letter B, Chim/02 - 03/A2).

2014-2019: Researcher, CD-Sapienza. Italian Law n.240/2010, art. 24, comma 3, letter A, Chim/02

2013: 1-year Assegno di Ricerca (AR) on “Development of gelled polymer electrolytes for advanced lithium-ion batteries”, CD-Sapienza

2010: 3-year Researcher (Italian Law 230/2005), CD-Sapienza

2009: 1-year AR on new materials for lithium-ion batteries, CD-Sapienza

2007: 2-year AR, CD-Sapienza. “Development of proton membranes and innovative electrode configurations for polymer electrolyte membrane fuel cells”

2006: 1-year Co.Co.Pro.(FILAS S.p.A) on the recovery of exhausted batteries, CD-Sapienza

2002-2005: PhD Scholarship (Supervisor: Prof. B. Scrosati) CD-Sapienza. Title of the PhD Thesis: “Study of electrolytic and electrodic materials for low temperature FC applications”

AWARDS

-Doctoral Thesis Prize 2007, Italian Chemical Society (SCI), Electrochemistry Division

-Eni Italgas Prize “Debut in Research”, XIX ed.

TEACHING ACTIVITIES

2012/13: "Ambiente e Beni Culturali" (CHIM/12, 6 CFU), Laurea Magistrale (LM) Scienze e Tecnologie per la Conservazione dei Beni Culturali. Sapienza

2014/15: “Chimica dei Beni Culturali e Metodi Elettrochimici” (CHIM/12, 6 CFU), LM Scienze e Tecnologie per la Conservazione dei Beni Culturali. Sapienza

2015/16: “Chimica dei Beni Culturali e Metodi Elettrochimici” (CHIM/02, 9 CFU), LM Scienze e Tecnologie per la Conservazione dei Beni Culturali. Sapienza

2016/17: “Chimica dei Beni Culturali e Metodi Elettrochimici” (CHIM/02, 6 CFU), LM Scienze e Tecnologie per la Conservazione dei Beni Culturali. Sapienza

2017/18, 2018/19: “Chimica dei Beni Culturali e Metodi Elettrochimici” (CHIM/02, 6 CFU); “Air Quality Analysis” (CHIM/02, 3 CFU), LM Scienze e Tecnologie per la Conservazione dei Beni Culturali. Sapienza

2019/20, 2020/21, 2021/2022: Sistemi di Produzione e Accumulo dell’Energia” (CHIM/02, 9 CFU), LM Chimica Industriale; “Chimica dei Beni Culturali e Metodi Elettrochimici” (CHIM/02, 6 CFU), LM Scienze e Tecnologie per la Conservazione dei Beni Culturali. Sapienza

ORGANISATION OF SCIENTIFIC MEETINGS

Member of the Organizing Committee:

2008: International Conference on Ionic Liquids for Electrochemical Devices (ILED) 2008.

2010: ILED-2 2010

2014: 5th International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE) H2igher Educational Rounds

2016: ILED-5 2016

2018: 69th Annual Meeting of the International Society of Electrochemistry (ISE), Symposium Interfacial Electrochemistry in Non-Aqueous Electrolytes

2018: ILED-6 2018, Chiarperson

2019: EUROMAT 2019, Symposium Materials for energy harvesting and conversion
2020: 1st Annual Meeting of ISE, Symposium Membrane-based electrodes: from traditional potentiometry to dynamic electrochemistry
2021: Symposium Bridging two centuries of electrochemical energy storage and conversion - in honor of Roberto Marassi
2022: International Summer School on Fundamentals, Materials and Applications of Lithium-Ion Batteries (SummerLIB), CIVIS-Erasmus+ Programme
Member of the Scientific Committee:
2004: 4th International Conference on Application of Conducting Polymers, ICCP-4
2009: 3rd World Congress of Young Scientists on Hydrogen Energy Systems, HYSYDAYS 2009
2014: XXXV Meeting of Electrochemistry of the Spanish Royal Society of Chemistry and 1st E3 Mediterranean Symposium: Electrochemistry for Environment and Energy
2016: 2nd E3 Mediterranean Symposium: Electrochemistry for Environment and Energy
2016: E-MRS 2016 Fall Meeting – Symposium Advanced materials for fuel cells and electrolyzers
2018: 1st ENERCHEM School
2018: E-MRS 2018 Fall Meeting – Symposium Battery and energy storage devices
2019: Convegno Giovani Ricercatori 2019, CD-Sapienza
2020: 2nd ENERCHEM Meeting
2021: IWES 2021 (First Italian Workshop for electrochemical energy storage)
2021: Workshop GISEL-INSTM "Electrochemical Energy Storage into the future: an Italian perspective"
2021: RE-News Seminars of ENERCHEM: 4/03/2021 "Hydrogen", 12/7/2021 "Batteries"

INVITED LECTURES AT INTERNATIONAL MEETINGS:

2009: The European Materials Research Society, Spring Meeting
2010: "5th Annual International Symposium, in conjunction with the 4th Australasian Symposium, on Ionic Liquids"
2014: 14th Ulm Electrochemical Talks
2014-2016: 7th-8th German-Italian-Japanese Meeting of Electrochemists
2017: 21st International Conference on Solid State Ionics
2018: 16th International Symposium on Polymer Electrolytes
2018: "The 1st Italian-Korean Bilateral Workshop on Electrochemical Energy Storage"
2019: "Italy-Korea Symposium on Advanced Materials for Sustainable Energy Technology"
2019: ELECTRIMACS 2019
2019: AVOGADRO COLLOQUIA
2019, 2020: NANO INNOVATION
2021: 72nd Annual Meeting of ISE
2021: Summer School NiPS – EnABLES "Powering the Internet of Things 2021"
2022: International Conference on Advanced Ceramics and Composites

COMMISSIONS OF TRUST

2016, 2017: *Expert Scientific Evaluator*, selected by the Research Executive Agency of the European Commission, for HORIZON 2020 "FET-OPEN-NOVEL IDEAS FOR RADICALLY NEW TECHNOLOGIES"
2016-2018, 2019-2021, 2022-2024: Member of the Executive Board of ENERCHEM "Chemistry for renewable energies", SCI
2020-2022: Member of the Executive Board of the Electrochemistry Division of SCI
2020-on: Member of the Executive Board of HYDRO-ECO "Hydrogen as an alternative and ecological energy carrier", research center of Sapienza
2020/2021-on: Member of the Board of the PhD course in Mathematical Models for Engineering, Electromagnetics and Nanosciences, Sapienza
2021-on: Member of the Selection Panel of the project "STORIES-Storage Research Infrastructure Ecosystem", Call H2020 Green Deal

Referee:

2012-2022: 5 PhD theses in Chemical and Pharmaceutical Sciences and Biotechnologies, Curriculum Chemical Sciences, School of Advanced Studies, Univ. Camerino
2017: PhD thesis in Biomolecular and Pharmaceutical Sciences, Univ. Chieti-Pescara
2017: PhD thesis in Materials for Health, Environment and Energy, Univ. Rome Tor Vergata
2020: PhD thesis in Scienze e Tecnologie Fisiche, Chimiche e dei Materiali, Univ. Calabria
2022: PhD thesis in Materials Science and Nanotechnology, Univ. Milan Bicocca

Guest Editor:

- Special Issue ILED “Ionic Liquids for Electrochemical Devices: from fundamentals to functional applications”, *Electrochimica Acta*, Elsevier
- Special Issue “Functional Polymers for Electrochemical Applications”, *Polymers*, MDPI (ongoing).
- Special Issue “Advanced Materials for PEM-Based Fuel Cell Systems”, *Applied Science*, MDPI (ongoing).

Member of the *Advisory Editorial Board* of the journal *Materials for Renewable and Sustainable Energy*, Springer

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

Active Member:

- Ordine Interregionale dei Chimici e dei Fisici di Lazio, Umbria, Abruzzo e Molise
- Federazione Nazionale degli Ordini dei Chimici e dei Fisici
- Italian Chemical Society (SCI). Divisions: 1. Electrochemistry; 2. Physical Chemistry
- Interdivisional Group: EnerChem
- International Society of Electrochemistry (ISE)

Affiliated to HYDRO ECO, Research Center of Sapienza (2009)

Chart Member of:

- “Eco Recycling”, SPIN OFF of Sapienza (2008)
- GISEL “Italian Group on Electrochemical Storage”

MAJOR INTERNATIONAL COLLABORATIONS

Chalmers University of Technology (Sweden); Hunter College of CUNY (USA); Tokyo University of Agriculture and Technology (Japan); KIT-HIU, Ulm (Germany)

RESPONSIBILITY OF FUNDED PROJECTS

2022-2024: SBAM “Stoccaggio di energia con Batterie ad Acqua di Mare”, MiTE. For Sapienza € 267400. Principal Investigator (PI)

2021: “Study on cathode buffer layer applying to sulfide based all-solid-state batteries, and the optimization for high-rate charge”, Mercedes-Benz AG. € 89400. PI

2020: “Ionic Liquid-based electrolytes for Energy Storage devices”, Sapienza. € 15000. PI

2019: “Electrode active materials from end-of-life Lithium ion BATteries”, Sapienza. € 38287. PI

2019÷2021: “Materiali catodici ed elettrolitici ad elevata tensione di lavoro”, ENEA-MiSE. € 132000. PI

2016÷2019: “Solid-State batteries using novel composite anodes”, Samsung R&D Institute Japan. € 155000. PI

2017: “Preparation and characterization of samples of gel polymer electrolytes with certain selected PVDF grades”, Solvay Specialty Polymers Italy S.p.A. € 25000. PI

2017: “Stabilizing the performance of high-voltage lithium Batteries by new generation composite Electrolytes”, Sapienza. € 13000. PI

2015: “Polymer electrolyte membrane water electrolyzers: innovative, cost-effective electrocatalysts with enhanced durability”, Sapienza. € 11000. PI

2014: “Advanced nano-composite hybrid membranes and innovative electrocatalysts for fuel cell applications”, Sapienza. € 9000. PI

2010: “Synthesis and physical chemical characterizations of proton conducting, nano-composite polymer electrolytes for fuel cell applications”, Sapienza. € 85000. PI

PATENTS

EU Patent “Method of making an electrochromic device”, 7.11.2017. Application No./Patent No. 17200453.3 – 1210. USA application: 6.11.2018 (Int. Appl. No: PCT/EP2018/080322). Applicant: Solvay Specialty Polymers Italy SpA; Role: Inventor

BIBLIOGRAPHIC DATA

88 papers in international peer reviewed journals, 4 conference proceedings, 4 papers in national journals, 1 encyclopedic and 1 book chapter. H-index 25. Citations: 2050 (Scopus, May 2022). Seniority: 18 years.

May 2, 2022