

HAMIDEH DARJAZI

A committed researcher with 5+ years of experience in the field of energy storage. Co-supervised 2 BA theses and 3 MA theses. Authored 8 articles, published in prestigious journals, with related expertise in energy storage. A confident presenter at conferences (more than 6 international conferences), able to explain complex information to audiences.



EDUCATION

PhD in Chemistry | University of Camerino, Italy

January 2018- September 2021

- Synthesis and Structural/Electrochemical Characterization of Hard Carbon electrodes for Li/Na-Ion Batteries and Supercapacitors.
- Synthesis and Structural/Electrochemical Characterization of High-Voltage Cathodes (NMC333, NMC811, LNMO, etc.) for Li-Ion Batteries.
- Half-cell and Full-cell Applications of Na-ion Batteries. based on.

M.S. in Materials Science and Engineering | University of Isfahan, Iran.

September 2013- September 2015

- Synthesis and Structural/Electrochemical Characterization of Manganese Oxide for Supercapacitors.
- Synthesis of nano zinc oxide by anodic dissolution method.



EXPERIENCE

Postdoc researcher | University of Camerino, Italy

September 2021- September 2022

- Implementing some European universities' research projects.
- Involving in research and projects with some European companies.
- Serving as a student co-supervisor (BA, MA, PhD), helping students to define and follow their academic paths.
- Evaluating students' assignments and papers.
- Writing research and funding proposals.
- Researching on Li/Na-ion batteries, and supercapacitors.

Research stay | CIC Energigune, Spain

February 2020- August 2020

Researching on Li-ion batteries:

- Developed high-voltage Ni-rich ($\text{LiNi}_{0.8}\text{Mn}_{0.1}\text{Co}_{0.1}\text{O}_2$) cathode materials by modification for next-generation Li-ion batteries: synthesis, structural, electrochemical, and electronic/ionic transport behaviors.

Investigated the effect of nitrogen doping on $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ sputtered thin films as high voltage cathode materials for Li-ion batteries; synthesis, structural, electrochemical, and electronic/ionic transport behaviors.



SKILLS

- Synthesis methods (Sol-gel, Sputtering, electrodeposition, Hydrothermal, Solvothermal)
- Structural characterization (Raman, ICP, XRD, TEM, FTIR, TGA, BET)
- Software skills (FullProf, Maud, Boukamp, EC-Lab, RelaxIS, origin, Blender, Gwyddion).
- Morphological characterization (SEM, AFM).
- Electrochemical characterization (CV, EIS, GCPL, GITT).



PUBLICATIONS

I authored several research papers in prestigious journals, which can be retrieved online:

<https://scholar.google.com/citations?hl=it&user=-lbT1l8AAAAJ>

In addition, three papers are under review of high impact factor journals, which have been assigned as:

"From waste to resources: Transforming olive leaves to hard carbon as sustainable and versatile electrode material for Li/Na-ion batteries and supercapacitors", submitted to the Journal of Energy Storage.

"Synthesis and characterization of a high-capacity anode material for Na-ion batteries based on Fe_3O_4 and reduced graphene oxide", submitted to the Journal of Materials Today Energy.

"Improved High-Voltage Cycling Performance of Nickel-Rich NMC Layered Oxide Cathodes by Mg and Zr Co-doping for Rechargeable Lithium-ion Batteries", Revised by Materials today sustainability.



TEACHING EXPERIENCES

Co-supervisor (3 Master theses and 2 Bachelor theses) | University of Camerino, Italy
Physical chemistry laboratory 1 | University of Camerino, Italy.



CONFERENCE CONTRIBUTIONS

6 oral presentations and 11 poster presentations.



AWARDS

- Best poster in 6th Scientific Day della Scuola di Scienze e Tecnologie, 2018, Camerino, Italy.
- Best student in MSc course (Achieved the highest GPA among all students).
- Ranked at position 1 in the MSc among 40 researchers.
- Best student in university in 2013-2014.
- Ranked at position 4 among 63 students in BSc.