





Curriculum Vitae et Studiorum

PERSONAL INFORMATION

ANTONIO DE MARCO

 Contrada Colle Calcare 38, 86100 CAMPOBASSO (CB)
 Via Ezio Cesarini 9, 40129 BOLOGNA (BO)
 3897879250
 antonio.demarco8@unibo.it



Gender Male | Date of birth Oct 5 1998 | Nationality Italy

WORK EXPERIENCE

Feb 2023 – to date

Research contract

<https://magnifyproject.eu>

Electrochemical characterization of electrospun fibers, containing molecular machines, to be used as artificial muscles controlled by external stimuli. Combined measurements AFM – Potentiostat are used to monitor the response of the nanofibers.

Università di Bologna, Selmi, 2 - BOLOGNA (BO) Italy

Business or sector chemistry

Apr 2022 - Dec 2022

Undergraduate internship

Preparation of a bio-based separator for Li-ion and Li metal technologies.

TGA and DSC were carried out to assess the thermal stability of the material; electrolyte uptake and viscosity measurements were performed to have more physical information of the material; SEM was performed to have a look at the surface of the separator; electrochemical measurements were carried out to investigate the performances of the cells made up with the bio-based separator. Viscosity and porosity easurments were performed at GVS S.p.a. laboratories.

Bologna, Selmi, 2 - BOLOGNA (BO) Italy

Business or sector chemistry

Mar 2020 - Jul 2020

Undergraduate Internship

Li metal protection by synthesising a solid electrolyte interphase (SEI) aimed to the improvement of the stability and the cycle life of Li-sulphur batteries. Electrochemical measurments were performed to evaluate the stability and the performances of Li metal electrodes with ex-situ formed SEI. Università di Bologna, Selmi, 2 - BOLOGNA (BO) Italy

Business or sector chemistry

EDUCATION AND TRAINING

2020 - 2022

Corso di Laurea Magistrale in Photochemistry and Molecular Materials

EQF level 7

Alma Mater Studiorum - Università di Bologna - School of Science

2nd cycle degree/Master of Science (2 years)

110/110 cum laude

2017 - 2020

CHIMICA E CHIMICA DEI MATERIALI

EQF level 6

Alma Mater Studiorum - Università di Bologna - School of Science

1st cycle degree/Bachelor (3 years)

110/110 cum laude

PERSONAL SKILLS

Foreign language(s)

English

UNDERSTANDING				SPEAKING				WRITING	
Listening		Reading		Spoken interaction		Spoken production			
B2	Independent	B2	Independent	B2	Independent	B2	Independent	B2	Independent

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user
Common European Framework of Reference for Languages

Job-related skills

Physico-chemical characterization of materials:

UV/Vis and near-infrared (NIR) spectroscopy, Scanning electron microscopy (SEM), Transmission electron microscopy (TEM), X-ray diffraction (XRD), Thermogravimetric analysis (TGA), Fourier-transform infrared spectroscopy (FT-IR), Differential Scanning Calorimetry (DSC), Cyclic voltammetry (CV), Galvanostatic cycling with potential limitations (GCPL), Electrochemical Impedance Spectroscopy (EIS), Staircase Potentio Electrochemical Impedance Spectroscopy (SPEIS), Large Amplitude Sinusoidal Voltammetry (LASV) .

Digital competences

SELF-ASSESSMENT				
INFORMATION PROCESSING	COMMUNICATION	CONTENT CREATION	SAFETY	PROBLEM SOLVING
Independent user	Independent user	Independent user	Independent user	Independent user

Basic digital competence:

OFFICE AUTOMATION

Office Suite: (Advanced) | **Presentation Software:** (Advanced) | **Spreadsheets:** (Advanced) | **Web Browser:** (Advanced) | **Word Processors:** (Advanced)

COMPUTER PROGRAMMING

Programming languages: C++ (Foundation)

SYSTEMS AND NETWORKS MANAGEMENT

Operating systems: (Advanced)

PUBLICATIONS

Technical report

"Caratterizzazione dell'interfase Li/elettrolita, nel sistema elettrolitico ottimizzato, con diversi separatori." ; C. Arbizzani, M. Rahmanipour, G. Lacarbonara, A. De Marco (2020).