

PERSONAL INFORMATION

Alessia Cabrini



WORK EXPERIENCE

Sep. 2020 – Sep. 2021

Research Assistant

National Council of Research (CNR)

Business or sector Food packaging

Jun. 2020 – Aug. 2020

Process and Technological Engineer

Borusan Mannersman Vobarno Tubi Spa

Business or sector Engineering

Nov. 2019 – Apr. 2020

Research fellow INSTM

Department of Industrial Engineering of University of Padova, via Gradenigo, 6/a, 35131, Padova - Trucker subforniture s.r.l., via dell'Industria, 16, 35020, Padova

Main goal of the research activity is the development of composite materials with organic and geopolymer matrices suitable to improve the performance of the brake pads system in electric and hybrid vehicles.

Key aspects of the activity:

- analysis and selection of raw material, considering the end product required performance and the plant features
- design of the production process
- physical, mechanical and thermal properties characterization of the composite materials

Business or sector Organic and inorganic matrix composite materials

Mar. 2019 – Sep. 2019

Research Internship (activity correlated to dissertation project)

Department of Industrial Engineering of University of Padova, via Gradenigo, 6/a, 35131, Padova - Trucker subforniture s.r.l., via dell'Industria, 16, 35020, Padova

Development of geopolymer matrix composite materials and their production process via *cold sintering*, using SMC technology. Investigation of the geopolymer powder optimal composition, in term of relative humidity and granulometry.

Physical, mechanical and thermal characterization and fractographic analysis.

Business or sector Ceramic matrix composite materials

Mar. 2016 – Jun. 2016

R&D Engineer Internship (Activity correlated to dissertation project)

Ompi s.r.l. –Stevanato Group, via Molinella 17, 35017, Piombino Dese (PD)

Mechanical and optical characterization of a coating system for pharma glass packaging that minimizes the interaction between drugs and glass, thus increasing shelf life of the container.

Design of experiment and performance qualification of an innovative closure system for the syringe tip based on crew cap.

Business or sector Primary glass packaging for the pharmaceutical sector

EDUCATION AND TRAINING

Nov. 2020 – Now

PhD student

Polytechnic University of Milan – Department of Chemistry, Materials, Chemical Engineering “Giulio Natta”

Business or sector Food packaging

Mar. 2017 – Oct. 2019

Master’s degree in Material Engineering

Department of Industrial Engineering of University of Padova, via Gradenigo, 6/a, 35131, Padova

Graduation thesis title: “Development of geopolymer matrix composites for manufacturing with industrial technologies”

- Main knowledge acquired:
- Tools for an in-depth knowledge of all classes of materials (ceramic materials, plastic materials, metals, composites, glass and nanostructured materials) and their production methods
- Machine construction and design
- Transformation and processing technologies of materials
- Design and selection of materials
- Recycling of plastic materials
- Corrosion and materials protection

Oct. 2013 – Mar. 2017

Bachelor’s degree in Chemical e Material Engineering

Department of Industrial Engineering of University of Padova, via Gradenigo, 6/a, 35131, Padova

Graduation thesis title: “Development and mechanical characterization of a closure system for pharma glass packaging”

- Main knowledge acquired:
- Fundamental phenomena (thermodynamic, kinetic, chemical) of matter and energy transformations
- Structure of matter (solid mechanics and material science)
- Phenomena of transport of fluids and energy
- Selection and design of process industry equipment
- Metallurgy
- Characterization of materials

Sep. 2008 – Jun. 2013

High School Diploma

“Benedetto Castelli” Scientific and Technological High School

- main in-depth subjects: math, physics, chemistry, computer science and technical draw.

PERSONAL SKILLS

Mother tongue(s)

Italian;

Other language(s)

UNDERSTANDING	SPEAKING	WRITING

	Listening	Reading	Spoken interaction	Spoken production	
Replace with language	B2	C1	B2	B2	B2
IELTS, Academic Mudulus, Score: 6 – European Level: B2 (August 2020) Best, OpenBadge English B2 – Cambridge English (February 2019)					

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

Communication skills Strong interpersonal skills acquired through my experience as university librarian (front office activity) and as disabled carer at university residences (voluntary work).

Good integration and communication skills in multicultural contexts, achieved through collaboration with researchers from other countries and through exchange with students of other mother tongue.

Organisational / managerial skills Good teamworking skills gained thanks to the internship of the bachelor’s degree, in which I was part of a R&D research team.

Good organization and people management skills acquired through my work experiences (both as researcher and as librarian), voluntary work (as disabled carer), and student internships.

Goal oriented approach and project management competencies mainly gained through the activity related to the research scholarship.

Job-related skills Technical competences acquired during the research activity carried out through the research scholarship and internships:

- Good knowledge of laboratory equipment (e.g. SEM analysis, stereomicroscopy, rheological measurements, mechanical tests, TGA analysis...)
- skills in the processing of experimental data through different software (e.g. Origin, Excel, Match!, R, MATLAB...).

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Independent user	Independent user	Independent user	Basic user	Independent user

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

- Excellent knowledge of: Microsoft Excel, Word, Power Point, Origin, CES selector.
- Good knowledge of: Matlab, R, Match!.

Other skills Licensed as Open Water Diver.

Driving licence B

ADDITIONAL INFORMATION

Certifications Licensed as Industrial Engineer

Autorizzo il trattamento dei dati personali contenuti nei mio curriculum vitae in base all’art.13 del D. Lgs. 196/2003 e all’art 13 del Regolamento UE 2016/697 relativo alla protezione delle persone fisiche con riguardo al trattamenti dei dati personali.

Alessia Cabrini