



Alessia Cabrini

● WORK EXPERIENCE

16/09/2020 - 31/07/2022 - Lecco, Italy

RESEARCH ASSISTANT – NATIONAL COUNCIL OF RESEARCH -INSTITUTE OF POLYMERS, COMPOSITES AND BIOMATERIALS (CNR-IPCB)

Prot N.0001419

Activities: study and development of bio-nanocomposite materials based on biopolymer matrix and nanofillers (e.g. graphene, graphene oxide, nanocrystal of cellulose) to fabricate high gas barrier or EMI shielding coatings by means of Ultrasonic Spray System.

10/2019 - 04/2020 - Padova, Italy

RESEARCH FELLOW – INSTM

Design of composites based on resin or geopolymer matrices and carbon and Kevlar fibres with SMC and wet moulding technologies to improve the performances of the brake pads system in electric vehicles. Characterization performed: Mechanical, thermal, rheological tests, fracture analysis, and resin reactivity evaluation.

03/2022 - 04/2022 - San Paolo, Brazil

VISITING RESEARCHER – INSTITUTE OF THE MACKENZIE PRESBYTERIAN UNIVERSITY, GRAPHENE AND NANOMATERIAL RESEARCH CENTER

Activities: Characterization of barrier and EMI shielding nanocomposite coatings through conductivity tests, EMI shielding tests, AFM, OM, viscosity tests.

● EDUCATION AND TRAINING

11/2020 - CURRENT

PHD STUDENT IN MATERIALS ENGINEERING – Politecnico di Milano

Study and development of materials and technologies for food-preservation packaging related.

03/2013 - 10/2019

MASTER'S DEGREE IN MATERIALS ENGINEERING – Università degli studi di Padova

- 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
- Transformation and processing technologies of materials
- Design and selection of materials
- Recycling of plastic materials
- Corrosion and materials protection
- Machine design and Manufacturing technology

- Solid-State Physics

Final grade 104/110 |

Thesis Development of geopolymeric matrix composites for manufacturing with industrial technologies

11/2013 - 03/2017

BACHELOR'S DEGREE IN CHEMICAL AND MATERIAL ENGINEERING – Università degli studi di Padova

- Characterization of materials
- Electrochemistry
- Thermodynamics
- Structure of matter (structural design and material science)
- Phenomena of transport of matter and energy
- Design of process industry equipment

Thesis Development and mechanical characterization of closure system for pharma glass packaging

■ LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

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

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

■ PUBLICATIONS

A. Cabrini, M. Lavorgna, A. Ghalayani, P. Cerruti, L. De Nardo. Ultrasonic spray deposition of chitosan-based nanocomposite coatings for enhancing barrier properties of polybutylene succinate films, in Proceedings of the 10th Shelf-life International Meeting (SLIM, Bogotá, CO).

2022

A. Cabrini, A. Ghalayani, P. Cerruti, L. De Nardo, R. Chiesa, G. Buonocore, M. Lavorgna. Gas barrier bio-nanocomposite coatings: ultrasonic spray deposition of chitosan/graphene oxide coatings on biodegradable flexible films, in Proceeding of the 4th International Congress Advances in the Packaging Industry - Sustainability: Products and Processes (Naples).

2022

A. Cabrini, G. Rollo, G. Buonocore, P. Cerruti, L. De Nardo, M. Lavorgna. Sustainable nanocomposite coatings for PBS substrates: the potential of ultrasonic spray deposition. In Proceeding of the 3rd International Congress Advances in the Packaging Industry Sustainability: Products and Processes.

2021

A. Cabrini, Gennaro Rollo, G. G. Buonocore, P. Cerruti, L. De Nardo, M. Lavorgna, R. Chiesa, L. Ambrosio. Ultrasonic spray deposition of sustainable nanocomposite coatings based on graphene oxide for enhancing barrier properties of polybutylene succinate substrates. In Proceeding of the PARACAT Workshop: Chemistry at the Surface.

2021

A. Cabrini, Gennaro Rollo, G. G. Buonocore, P. Cerruti, L. De Nardo, M. Lavorgna, R. Chiesa, L. Ambrosio. Ultrasonic spray deposition of chitosan-based nanocomposite coatings for enhancing barrier properties of polybutylene succinate films. In Proceeding of the 2nd Workshop IPCB future sustainability: from environment to health.

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2021

A. Cabrini, A. Ghalayani, P. Cerruti, L. De Nardo, R. Chiesa, G. Buonocore, M. Lavorgna. Gas barrier bio-nanocomposite coatings: ultrasonic spray deposition of chitosan/graphene oxide coatings on biodegradable flexible films. In Proceeding of the 4th International Congress Advances in the Packaging Industry - Sustainability: Products and Processes (Naples).

■ CONFERENCES AND SEMINARS

12/11/2021 - 13/11/2021 - Virtual edition

3rd International Congress Advances in the Packaging Industry Sustainability: Products and Processes

Poster presentation

26/11/2021 - 27/11/2021 - Virtual Edition

PARACAT Workshop: Chemistry at the Surface

Poster presentation

15/12/2021 - 16/12/2021 - Virtual Edition

2nd Workshop IPCB future sustainability: from environment to health

Oral presentation

15/07/2021 - Milan

Mid term Meeting sPATIALS3

Oral presentation

■ DISSEMINATION ACTIVITIES

23/11/2021 - 26/11/2021

FUTURO REMOTO XXXV – “TRANSIZIONI” edition

oral presentation and organization of the stand exhibition.

11/11/2021 - 12/11/2021

SMAU Milano

collaboration in the organization and presentation of the stand exhibition “CNR | HUB sPATIALS3”.

■ **DIGITAL SKILLS**

My Digital Skills

Microsoft Office | CES selector | origin