



Matteo Dalle Donne

PhD student

- Group of Polymers – Dpt. of Industrial Chemistry “Toso Montanari”, Viale Risorgimento 4, 40136, Bologna, Italy
- Mail matteo.dalledonne2@unibo.it
- Date of birth **08/05/1996**
- Nationality **Italian**

Presentation

Master's degree in Industrial Chemistry, graduated with honours from the university of Bologna. Currently enrolled in the second year of the Doctorate in Industrial Chemistry at University of Bologna. My research work is focused on the study and valorisation of production waste and end-of-life of fibrous materials for the formulation of biocomposite.

Accustomed to working both individually and in groups with articulated objectives and on multiple projects, good problem solving skills and good interpersonal relations.

Work Experience

(01/03/2023-Actually)

PhD student in Industrial Chemistry

University of Bologna, Italy

- PhD scholarship funded by European Union-NextGenerationEU under the National Recovery and Resilience Plan (NRRP) with the title: Valorisation of production waste and end-of-life fibrous materials for the formulation of (bio)composites.

(06/10/2021-27/02/2023)

3D Printing operator

Juno Design S.R.L, Bologna, Italy

- Employed as a 3D printing operator at a company specializing in rapid prototyping in the field of additive manufacturing. Specifically, I was responsible for the entire prototype production cycle, from the acquisition and processing of 3D files to their layout, printing, and subsequent post-processing with final dimensional control using a point cloud scanner.

(05/04/2021–05/10/2021)

Postgraduated Internship

Studio Pedrini S.R.L, Bologna, Italy

- Internship aimed at learning the fundamental principles of additive manufacturing, with a focus on liquid bed planar processes (specifically, Digital Light Synthesis, a proprietary process of Carbon 3D printing).
 - Obtained the regional professional qualification of GRAPHIC AND PRINTING OPERATOR, issued by ForM.art in collaboration with the Emilia-Romagna region.

(07/2017 – 08/2017)

Caddy Master

Golf Club Bologna, Bologna, Italy

- I interacted with clients daily, handling various requests and independently resolving different issues as they arose.

Educational and training

(01/03/2023-Actually)

Enrollment in the 38th cycle of the Ph.D. program in Industrial Chemistry

University of Bologna, Italy

(09/2018-03/2021)

Master's degree in Industrial Chemistry

University of Bologna, Italy

Final grade: 110/110 cum Laude

Thesis: **Development of nanofibrous fabrics in Nylon 6,6 with improved delamination resistance**, Tutor Prof. Laura Mazzocchi.

(09/2015-07/2018)

Bachelor's degree in Industrial Chemistry

University of Bologna, Italy

Final grade: 104/110

Thesis: **Synthesis and characterization of Ag-Fe carbonyl clusters stabilized by carbenes**,
Tutor Prof. Stefano Zacchini.

(09/2010-07/2015)

Scientific High School diploma

Scientific high school Augusto Righi, Bologna, Italy

Final grade: 88/100

Skills

Mother language

Italian

English

Understanding		Speaking		Writing
Listening	Reading	Interaction	Production	Production
B1	B1	B1	B1	B1

Soft skills

Good communication/relational skills developed through the work in team projects during the university/work experiences. Ability to plan the research activity and manage a chemical lab.

Technical skills

Good theoretical knowledge and practical experience about **NMR** (^1H , ^{13}C), Thermal Analysis (**TGA** and **DSC**), Thermal Mechanical Analysis (**DMA**), Gel Permeation Chromatography (**GPC**), study of the flame behavior of materials (**Concalorimeter**), plastics extrusion and 3D printing (**FDM, SLA, DLP, FGF**). Certified operator authorized to use the Carbon[®] 3D printer.

Digital competence

Great command of Office suite (Word, Excel, Power Point) and good command of the scientific software OriginPro, MestReNova and TA Universal Analysis, in addition to search engine as Reaxys and Scopus (Elsevier). Fine command of softare cad 3D (Fusion 360) and Slicing software for 3D printing (Ultimaker Cura, Orcaslicer, Super slicer).

Academic activity

Lab Tutor Activity

- “Laboratory of Products, Formulations, and Industrial Processes” course of the Professional Degree in Chemical Methodologies for Products and Processes, University of Bologna (a.a 2023/2024)
- “Laboratory of Fundamentals of Polymer Chemistry” course of the Professional Degree in Chemical Methodologies for Products and Processes, University of Bologna (a.a 2023/2024)

Co mentor activity

- Thesis “Studio di nuovi sistemi indurenti da fonte rinnovabile per la reticolazione di resine epossidiche” defended by Ilaria Medri (a.a 2022/2023, Session II)

Other activity

- Assistance to the tensile tests on the dynamometer carried out in the experience of laboratory of the course “Industrial Polimeric Products with laboratory” of the Master's Degree in Industrial Chemistry, University of Bologna (a.y. 2023/2024) Person in charge: Prof. Elisabetta Salatelli
- Assistance with additive manufacturing experience in the laboratory of the course “Poymer Science eith Laboratory” of the Bachelor's Degree in Chemistry and Technologies for environment and materials, University of Bologna, Faenza campus (a.y. 2023/2024) Person in charge: Prof. Tiziana Benelli.

Pubblications

Published

1. E. Maccaferri, M. Dalle Donne, L. Mazzocchetti, T. Benelli, T. Brugo, A. Zucchelli, L. Giorgini, "Rubber-enhanced polyamide nanofibers for a significant improvement of CFRP interlaminar fracture toughness" *Scientific Reports* (2022) 12, 21426
2. M. Dalle Donne, J. Ortolani, E. Maccaferri, L. Mazzocchetti, T. Benelli, T. Brugo, A. Zucchelli, L. Giorgini, "NBR-rich nanofibrous membranes for hindering composite delamination: comparison of the performance obtained using liquid and photocrosslinked rubber" *Macromolecular symphosia* (2024)

Communications

Conference

As a Speaker

- M. Dalle Donne, J. Ortolani, E. Maccaferri, L. Mazzocchetti, T. Benelli, T. Brugo, A. Zucchelli, L. Giorgini, "NBR-rich nanofibrous membranes for hindering composite delamination: comparison of the performance obtained using liquid and photocrosslinked rubber" 11 th International Conference on Time of Polymers (TOP) and Composites 2023 (11-15/06/2023 Ischia, Italy) (**Oral**).

Lessons

- "Additive Manufacturing" 2 h for "Laboratory of Products, Formulations, and Industrial Processes" course of the Professional Degree in Chemical Methodologies for Products and Processes, University of Bologna (Resp. Prof Tiziana Benelli 07/05/2024).
- "Additive Manufacturing" 2 h for "Polymer Science with Laboratory" course of the BSc degree in Industrial Chemistry and Technology for the Environment and Materials, University of Bologna (Faenza (Resp. Prof Tiziana Benelli 08/05/2024).

Courses and workshop

- "Academic English" course, CLA Bologna (PhD programme, November-January 2023/2024)

Additional informations

Grant and awards

- Winner of the scholarship competition for outstanding students at the University of Bologna, enrolled in the second year of the Bachelor's degree in Industrial Chemistry (L27) for the 2016-2017 academic year, funded by the Toso Montanari Foundation.

Driving licence

Category B