ALESSANDRO BEDUINI

Via privata Comasina 3, 20843
VERANO BRIANZA
(Monza e Brianza, Italy)

+39 333 7311364

alessandro.beduini@unimi.it

linkedin.com/in/alessandrobeduini

ABOUT ME

I am PhD student in Industrial Chemistry at the Università degli Studi di Milano.

I love challenges and I am an ambitious guy.

I believe that, in order to reach the top, a person should be humble, with a great desire to learn, an ability to communicate and collaborate with other people in a team.

In my small way, I have always looked for positions of responsibility; I am studying to become a leader and I believe in the teamwork, the only way convincing me to reach the foreseen goal.

EXPERIENCE

Phd, Industrial Chemistry

Università degli Studi di Milano, 11/2020 – present

Flame retardants (FR) for textiles and polyurethane foams.
Synthesis of homo- and copolymers, study of correlation structure and FR properties, cotton's chemical modification for durable coatings, flame retardant tests, study of gas emissions and FR residues.
Characterization techniques used:
- Fourier transform infrared spectroscopy/attenuated total reflectance (FT-IR/ATR);
- Raman spectroscopy;
- X-ray photoelectron spectroscopy (XPS)
- hydrogen nuclear magnetic resonance (^{1}HNMR);
- size exclusion chromatography (SEC);
- thermogravimetric analysis (TGA);
- combustion tests (Horizontal and Vertical Flame Spread Tests,HFST e VFST, Oxygen Consumption Cone Calorimetry test, ignition test);
- TGA coupled with FT-IR spectroscopy (TG-IR);
- scanning electron microscopy (SEM);
- field-emission scanning electron microscopy (FE-SEM).

Master's thesis

Università degli Studi di Milano, 03/2019 – 02/2020

One year experience in a research laboratory, in which I performed a project about the design of new polymeric flame retardants for cellulosic substrates.
In this period, I developed soft skills as the work management of which I was responsible, time managment, organization of common places and analytical instruments shared, problem solving ability.
Furthemore, I performed hard skills about synthesis and characterization of polymeric material.
In particular, I focused my research on synthesis and characterization of homo- and copolymer based on natural amminoacids, belong to the polyamidoamines family.

Bachelor's thesis

Università degli Studi di Milano, 07/2017 – 11/2017

First experience in a research laboratory, lasted 3 months.
In particular, I studied the chemical-structural, morphological, thermal characterization and the flame retardant properties of syntethic homopolymers belong to polyamidoamines family.

Network Marketing

Cashback World, 05/2016 - 11/2017

First work experience lasted 18 months.
Skills acquired:
- teamwork ability;
- time managment;
- communication and language skills in one-to-one interviews both with private individuals and with small entrepreneurs.

EDUCATION

- **Master's degree in Industrial Chemistry (official language: English)**
  Università degli Studi di Milano, 01/03/2018 – 10/03/2020
  110/110

  Synthesis, characterization and application of polymers on cotton fabrics and polyurethane foams for flame retardant coatings.
  Supervisor: Dr. Jenny Alongi

- **Bachelor's degree in Chimica Industriale (official language: Italian)**
  Università degli Studi di Milano, 10/2014 – 02/2018
  93/110

  Study of the correlation structure – flame retardant performances of polyamidoamines.
  Supervisor: Dr. Jenny Alongi

- **Scientific high school diploma**
  Liceo Statale Ettore Majorana, Desio (Italy), 09/2009 - 07/2014

COURSES

- **"Parlare in pubblico: come fare presentazioni di successo"**
  05/2020 – Life Learning, certified UNI EN ISO 9001:2015
  Codice di licenza 12351-276589-191204
  Development of techniques and methods for an effective communication.

- **"Master executive in project management"**
  04/2020 – Life Learning, certified UNI EN ISO 9001:2015
  Codice di licenza 72126-329396-191204
  13-hour course focused on the planning, organization, development and control of a company project from its inception to the achievement of the set goal through the classic and the Agile method.

- **"FINANZIA LA TUA IMPRESA"**
  Milan, 08/10/2019 – Milan Chamber of Commerce
  The aim of this course is to explain the different strategies to finance a start-up.

ORAL PRESENTATIONS

- **Poster presentation in an International congress "MILAN POLYMER DAYS 2021 – MIPOL2021"**
  Milan, 06/07/2021 – 08/07/2021

- **Oral presentation in an International congress "International Webinar on Polymer Science and Technology"**
  Barcelona, 14/06/2021 – 15/06/2021

- **Oral presentation in an International congress "MILAN POLYMER DAYS 2020 – MIPOL2020"**
  Milan, 15/07/2020 – 17/07/2020

- **Oral presentation in a National congress "MACROGIOVANI 2019"**
  Naples, 01/07/2010 - 02/07/2019

SKILLS

- ***Hard* skills**
  - ✓ Data analysis of different techniques (^{1}HNMR, FTIR/ATR, XPS, SEC, TGA, TG-IR, SEM, FE-SEM)
  - ✓ Data analysis using OriginPro2019 software
  - ✓ Use of different software: Pro II, MestReNova, ChemDraw
  - ✓ Microsoft Office products (Word, Excel, Powerpoint)

- ***Soft* skills**
  - ✓ Teamwork
  - ✓ *Leadership*
  - ✓ Work organization
  - ✓ Time management
  - ✓ *Problem solving*
  - ✓ Work ethic

LANGUAGES

- **Italiano - native**
- **Inglese - B2 certified by Università degli Studi di Milano**

PEER-REVIEWED PUBLICATIONS

- **Publication**
  Beduini A, Ferruti P., Carosio F., Ranucci E., Alongi J. Sulfur-based copolymeric polyamidoamines as efficient flame - retardants for cotton. *Polymers* **2019**, *11*, 1904, doi:10.3390/polym11111904.
  Open access publication
  https://www.mdpi.com/2073-4360/11/11/1904/htm

ABSTRACT PROCEEDINGS AND OTHER PUBLICATIONS

- **MILAN POLYMER DAYS 2021- MIPOL2021**
  Beduini A, Carosio F., Ferruti P., Ranucci E., Alongi J. Polyamidoamines derived from natural a-amino acids as effective, surface-confined flame retardants for cotton.

- **La Chimica e l'Industria- Italian Chemical Society**
  Beduini A. Una nuova era di ritardanti di fiamma.
  ISSN 2283-544X

- **International Webinar on Polymer Science and Technology**
  Beduini A, Carosio F., Ferruti P., Ranucci E., Alongi J. Copolymeric polyamidoamines as flame retardants for cotton.

- **MILAN POLYMER DAYS 2020- MIPOL2020**
  Beduini A, Carosio F., Ferruti P., Ranucci E., Alongi J. Homo- and copolymeric polyamidoamines as flame retardants for cotton fabrics.
  ISBN 978–88–3623–026–6

- **MACROGIOVANI 2019**
  Beduini A, Carosio F., Ferruti P., Ranucci E., Alongi J. Disulphide-Based Polyamidoamines as Flame Retardants for Cotton Fabrics.

AWARDS

- **Best Poster Presentation in a International congress**
  Milan (Italy), 07/2021
  Beduini A, Carosio F., Ferruti P., Ranucci E., Alongi J. Polyamidoamines derived from natural a-amino acids as effective, surface-confined flame retardants for cotton.
  MILAN POLYMER DAYS 2021 – MIPOL2021

- **Degree award "Best Master's Degree Thesis in the field of Industrial Chemistry" by the Italian Chemical Society**
  08/2020
  Award established by the Industrial Chemistry Division of the Italian Chemical Society for the best thesis of Industrial Chemistry, 2020 edition.

- **Degree award "Marinella Ferrari" by Rotary Club Milano Fiera**
  06/2020
  Award on the initiative and with the financial patronage of the Rotary Club Milano Fiera awarded on the basis of the merit examination carried out by a commission consisting of two members of the Rotary club and two Professors from the Chemistry Department of the University of Milan.

- **Best Oral Presentation in a National congress**
  Naples (Italy), 07/2019
  Beduini A, Ferruti P, Ranucci E, Alongi J., Disulphide-based polyamidoamines as flame retardants for cotton fabrics.
  Macrogiovani 2019 organised by AIM – ASSOCIAZIONE ITALIANA DI SCIENZA E TECNOLOGIA DELLE MACROMOLECOLE.

22/07/2021