Curriculum Vitae

Personal informations:

Name	Marcello
Surname	Franzini
Date and place of birth	
Sex	Male
Nationality	Italian
Address	
Telephone	
Mail	

Current position:

2022- present	PhD candidate in “Innovation for the Circular Economy”, Università degli Studi di Torino (Supervisor: Prof. C. Barolo & Dott. Galliano) Title: Study and Development of Sustainable functional Organic Thermoelectric Materials for applications in Automotive

Education:

Ott 2021	MsC in Chemical Sciences (110/110), Università degli Studi di Napoli Federico II. (Supervisor: Prof. A. Carella & Prof. R. Centore) Title: Synthesis and characterization of novel isoindigo derivatives
Ott 2019	BsC in Chemistry (97/110), Università degli Studi di Napoli Federico II. (Supervisor: Prof. M. Di Serio & Dott. R. Turco) Title: Studio della decomposizione dell’acqua ossigenata nei processi di epossidazione.

Previous professional experiences (academic and otherwise):

Jan 2024 – Jul 2024	Internship in Martur Italy srl in the Connectivity, Smart Devices, and Materials Innovation teams.

Visiting periods:

Jul 2024 – Aug 2024	Visiting PhD student at UniRoma2 (Italy). Supervisor: Prof. A. Reale Thermoelectric characterization of organometallic polymers & production of modules.
May 2024 – May 2024	Visit to Martur International's production plants, facilities, and technology centers (Turkey).
Oct 2023 – Dec 2023	Visiting PhD student at Newcastle University (UK). Supervisor: Prof. M. Freitag Characterization of organometallic polymers and Implementation into dye-sensitized solar cells.
Oct 2022 – Nov 2022	Visiting PhD student at UniRoma2 (Italy). Supervisor: Prof. A. Reale Thermoelectric characterization of organic polymers.

List of peer-reviewed publications:

2. "Roadmap on thermoelectricity" C. Artini, Z. Li, G. Pennelli, P. Graziosi, N. Neophytou, C. Melis, E. Isotta, K. Lohani, A. Castellero, M. Baricco, M. Palumbo, S. Casassa, L. Maschio, M. Pani, G. Latronico, P. Mele, L. Colombo, P. Scardi, F. Di Benedetto, G. Contento, M. F. De Riccardis, R. Fucci, B.Palazzo, A. Rizzo, V. Demontis, D. Prete, M. Isram, F. Rossella, A. Miozzo, S. Boldrini, A. Ferrario, E. Dimaggio, M. Franzini, S. Galliano, C. Barolo, S. Mardi, A. Reale, B. Lorenzi, D. Narducci, V. Trifiletti, S. Milita, A. Bellucci and D. M. Trucchi. *Nanotechnology 34 (2023) 292001 DOI 10.1088/1361-6528/acca88*
1. "Isoindigo dyes functionalized with terminal electron-withdrawing groups: Computational, optical and electrical characterization" A. Carella, M. Franzini, S. Fusco, R. Centore, M. Barra, F. Chiarella, A. Cassinese, M. Bonomo, S. Nejrotti, M. Carbone, L. Gontrani. *Dyes and Pigments 208 (2022) 110866* doi.org/10.1016/j.dyepig.2022.110866

List of scientific contributions:

Oral presentations

5. "Innovative Cu-based polymers to recover dissipated heat at low temperature" – S. Galliano, M. Franzini, S. Khattak, N. Barbero, M. Bonomo, K. Sashitaran, G. H. Morritt, M. Borri, G. Filiddani, M. Freitag, A. Reale, C. Barolo. XXXVIII National Congress of Società Chimica Italiana – Milan, Italy 26-30/08/2024.
4. "Printable thermoelectric devices based on organic semiconductor composites for low-temperature grade energy harvesting" - S. Muhammad, M. Franzini, S. Galliano, M. Bonomo, C. Barolo, L. La Notte, A. Reale. 40th International & 20th European International Conference on Thermoelectrics - Krakow, Poland - 30-06/04-07/2024.
3. "Graphene-based organic polymer composites for improved thermoelectric properties near room temperature" – A. Reale, S. Muhammad, F. Zarotti, M. Franzini, S. Galliano, M. Bonomo, C. Barolo, L. La Notte. Rome, International Conference on Environment and Electrical Engineering – Rome, Italy 2024.

2. “Doping strategies of thermoelectric organic polymers to enable efficient energy harvesting at low temperatures” - M. Franzini, S. Galliano, M. Zanetti, M. Borri, J. Tata, A. Reale, C. Barolo. - Rimini, Italy - 2023. ISBN: 978-88-94952-44-5

1. “Study and Development of Sustainable functional Organic Thermoelectric Materials for applications in Automotive” – M. Franzini, S. Galliano, M. Zanetti, M. Borri, J. Tata, A. Reale, C. Barolo. Scuola di Chimica Industriale - Turin, Italy, 2023.

Poster presentations:

3. “Novel Cu-polymers for low-temperature energy harvesting” - M. Franzini, S. Galliano, S. Muhammad, M. Bonomo, N. Barbero, K. Sasitharan, G.H. Morritt, M. Borri, G. Filiddani, M. Freitag, A. Reale, C. Barolo. - 40th International & 20th European International Conference on Thermoelectrics Krakow, Poland - 30-06/04-07/2024.
2. “Unreported high-performing counter-electrodes for DSSCs based on metal-sulphur coordination polymers” - S. Galliano, M. Franzini, K. Sasitharan, G.H. Morritt, M. Bonomo, A. Reale, M. Freitag, C. Barolo. Bolzano, RETEIFV, Italy - 2024
1. “Doping strategies of thermoelectric organic polymers to enable efficient energy harvesting at low temperatures” - M. Franzini, S. Galliano, M. Zanetti, M. Borri, J. Tata, A. Reale, C. Barolo. - Rimini, Merck Young Chemist’s Symposyum, Italy - 2023. ISBN: 978-88-94952-44-5

Tutoring and teaching activities:

4. Assistance of 2 Chemistry students during their theses.
3. Participation in chemistry and science education initiatives (Unight, ApertaMenteChimica)
2. Tutoring in student laboratory “Synthetic Chemistry for Smart Materials” (Prof. F. Cesano, Prof. M. Bonomo), Jan 2023, 40 hours.
1. Tutoring in student laboratory “Synthetic Chemistry for Smart Materials” (Prof. F. Cesano, Prof. M. Bonomo), Jan 2022, 40 hours.

Advanced schools:

3. “Scuola di Chimica Industriale 2023”
   Organizer: Società Chimica Italiana, Turin (Italy), 28-05 – 01/06/2023.
2. “Enerchem School – Chemistry for the Energy Transition”
   Organizer: Società Chimica Italiana, Florence (Italy), 13-17/02/2023
1. “International School on Materials for Energy and Sustainability”
   Organizer: Consorzio Cometa, Catania (Italy), 05-09/09/2022

Personal Skills

Hard skills	Practical knowledge of common laboratory operations and safety rules. Experience in synthesizing and characterizing organic small molecules, organic and organometallic polymers. (TGA, DSC, NMR (^{1}H- and ^{13}C-NMR), IR, UV-Vis, Schlenk line, Soxhlet extraction). Expertise in thermoelectrical characterization of organic materials and foams Short experience in the preparation and characterization of dye-sensitized solar cells.

Ability to conduct literature research and to write technical documents on the research activity.

Language

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
C1	C1	C1	C1	C1

Soft skills Positive attitude, creative, passionate, curious, teamwork

Driving license B

I authorize the use of my personal data according to Legislative Decree n° 196/03

16/09/2024 Franzini Marcello