

CURRICULUM VITAE ET STUDIORUM: Dr. Paolo Zardi



Personal data: Born in Lecco (LC), Italy on 19/07/1987
Present Position: Assistant Professor (RTDa) since July 2022
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EDUCATION

- **December 2014** Ph. D. in Industrial Chemistry at the University of Milan with a thesis entitled '*Synthesis of nitrogen-containing compounds via nitrene-transfer catalysed by porphyrin complexes*' under the supervision of Prof. Emma Gallo.
- **October 2011** Master degree in Chemical Sciences (110/110 summa cum laude) at the University of Milan with a thesis entitled '*Synthesis and heterogenization of Cu(I) complexes of macrocyclic chiral ligands (Pc L*) and application in catalytic stereoselective cyclopropanation reactions*', under the supervision of Prof. Alessandro Caselli.

PREVIOUS POSITIONS AND FELLOWSHIPS

- **From October 2019 to June 2022.** Assistant Professor (RTDa) at Department of Chemical Sciences, University of Padova, Italy.
- **From May 2019 to September 2019.** Postdoctoral fellow at Department of Chemical Sciences of the University of Padova, Italy (supervisor: Prof. Andrea Biffis).
- **From May 2017 to October 2018.** Postdoctoral researcher at Institut de Sciences Chimiques de Rennes, Université de Rennes 1, France (supervisor: Dr. Rafael Gramage-Doria).
- **From April 2015 to may 2017.** Postdoctoral fellow at Department of Chemical Sciences of the University of Padova, Italy (supervisor: Prof. Giulia Licini).

VISITS AND STAYS

- **March-May 2013** Visiting PhD Student at University of Leicester, UK.

BRIEF DESCRIPTION OF THE RESEARCH ACTIVITY

My research interests rely mostly on the development of synthetic methodologies for organic synthesis based on transition metal catalysis, with a focus on the C-H functionalization of heterocycles. To improve the selectivity and efficiency of these transformations, I employed unusual approaches such as: 1) Supramolecular catalysis, which aims to implement the typical features of enzymatic processes (e.g. substrate recognition and site selectivity) in artificial catalysts and 2) Flow chemistry. My expertise covers also the synthesis and functionalization of porphyrin ligands/complexes and the development of sensors for stereochemical analysis of chiral compounds.

TEACHING ACTIVITIES

- Teacher of the course: *Laboratory of Organic Chemistry 2* for the bachelor degree in Chemistry, University of Modena and Reggio Emilia (academic years 2022/2023)

- Teacher of the course: *Laboratory of Advanced Organic Chemistry* for the master degree in Chemical Sciences, University of Modena and Reggio Emilia (academic years 2022/2023)
- Teacher of the course: *Organic Chemistry* for the master degree in Pharmacy, University of Padova (from the academic years 2019/2020 to 2021/2022)
- Teacher of the course: *Organic Chemistry I* for the bachelor degree in Chemistry, University of Padova (from the academic years 2019/2020 to 2021/2022)

SUPERVISION OF PhD STUDENTS AND POSTDOCTORAL FELLOWS

- **2019-2022.** Supervision of one industrial Ph.D. Student (Dr. Andrea Cacciatore, Italcementi spa) working on a thesis entitled '*Smart concrete for urban areas: Improved performance and sustainability of functionalized graphene related materials in cementitious products*'

AWARDS

- Marie Curie co-fund fellowship "PRESTIGE incoming mobility" for a one-year postdoctoral training in France. Project Title "*Bio-inspired catalysis towards C-H bond functionalization*".

MEMBERSHIPS AND APPOINTMENTS

- Member of the Division of Organic Chemistry of the Italian Chemical Society.

ORGANISATION OF SCIENTIFIC MEETINGS AND SCHOOLS

- Member of the organizing committee of the 2016 congress of the Catalysis division of the Italian Chemical Society (GIC 2016).

BIBLIOMETRIC INDICATORS (Source Scopus)

Total number of publications in scientific journals: 17

Total number of citations: 440

H-index: 11

Average number of citations per year: 40

LIST OF SELECTED OF SCIENTIFIC PUBLICATIONS

1. "Enzyme-Like Supramolecular Iridium Catalysis Enabling C-H Bond Borylation of Pyridines with meta-Selectivity" J. Trouve, P. Zardi, S. Al-Shehimi, T. Roisnel, R. Gramage-Doria, *Angew Chem. Int. Ed* **2021**, 60, 18006-18013 (Selected as Hot Paper).
2. "Achieving selectivity in porphyrin bromination through a DoE-driven optimization under continuous flow conditions" P. Zardi, M. Maggini, T. Carofiglio, *J. Flow Chem.* **2021**, 11, 163-169 (as corresponding author).
3. "A Supramolecular Palladium Catalyst Displaying Substrate Selectivity by Remote Control" P. Zardi, T. Roisnel, R. Gramage-Doria, *Chem. Eur. J.* **2019**, 25, 627-634.
4. "Concentration-Independent Stereodynamic g-Probe for enantiomeric excess determination" P. Zardi, K. Wurst, G. Licini, C. Zonta, *J. Am. Chem. Soc.* **2017**, 139, 15616-15619 (featured in JACS Spotlights)
5. "Indoles Rather than Triazoles from the Ruthenium Porphyrin-Catalyzed Reaction of Alkynes with Aryl Azides" P. Zardi, A. Savoldelli, D. M. Carminati, A. Caselli, F. Ragaini, E. Gallo, *ACS Catal.* **2014**, 4, 3820-3823.