DIEGO OLIVIERI

Personal information

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Work Experiences

Research Fellow

1st November 2019 - Today

University of Bologna - Department of Industrial Chemistry "T. Montanari" (V.le Risorgimento 4, Bologna (BO), Italy).

My research activities are mainly focalized on Pd-catalyzed carbonylation reactions of unsaturated substrates.

Teaching

Academic Tutor (General and Inorganic Chemistry with Laboratory)

1st Semester, A.Y. 2019/2020

- Course: Chemistry and Technologies for the Environment and Materials (University of Bologna, Rimini (RN)).
 - Working as assistant in the laboratory and teaching (mainly strengthening and exercises).

Academic Tutor (Inorganic Chemistry with Laboratory)

2nd Semester, A.Y. 2019/2020

Course: Chemistry and Technologies for the Environment and Materials (University of Bologna, Rimini (RN)).

• Working as assistant in the laboratory and teaching (mainly strengthening and exercises).

Academic Tutor (General and Inorganic Chemistry with Laboratory)

1st Semester, A.Y. 2020/2021

Course: Chemistry and Technologies for the Environment and Materials (University of Bologna, Rimini (RN)).

• Working as assistant in the laboratory and teaching (mainly strengthening and exercises).

Academic Tutor (Inorganic Chemistry with Laboratory)

2nd Semester, A.Y. 2020/2021

- Course: Chemistry and Technologies for the Environment and Materials (University of Bologna, Rimini (RN)).
 - Working as assistant in the laboratory and teaching (mainly strengthening and exercises).

Education and Training

Exam to became a licensed chemist (Italian legislation)

 1^{st} session – July 2020. University of Camerino.

PhD Student in Chemistry

1st November 2016- 31th October 2019

University of Bologna - Department of Industrial Chemistry "T. Montanari".

 PhD student (XXXII Cycle) at the Department of Industrial Chemistry "Toso Montanari" - University of Bologna, under the supervision of Prof. Carla Carfagna and co-supervision of Dr. Rita Mazzoni. My PhD project involved carbonylation reactions of unsaturated substrates by using Pd complexes bearing aryl αdiimine ligands. Part of my studies were done in the Organometallic Laboratory of the Department of Biomolecular Sciences - University of Urbino "Carlo Bo"

Visiting Assistant in Research (VAR)

January 2019 – June 2019

University of Yale - Department of Chemistry (225 Prospect St., New Haven (CT), USA).

• I spent 6 months in the research group of Prof. T. R. Newhouse at Yale University, focusing my attention in cross-coupling reactions of unactivated alkenes catalyzed by nickel catalysts. Funded by Marco Polo program.

Master Degree in Industrial Chemistry (11/10/2016), grade: 110/110 cum laude.

October 2014 - October 2016

University of Bologna - Department of Industrial Chemistry "T. Montanari".

• Internship in the Department of Industrial Chemistry in the laboratories of Physical and Inorganic Chemistry, during which I studied iron (0) complexes containing N-heterocyclic carbene (NHC) ligands functionalized with an EDOT (3,4-Ethylenedioxythiophene) group, with the aim to realize Electrochemically Modified PEDOT Sensors (Supervisor: Dr. Rita Mazzoni).

Bachelor Degree in Chemistry and Technologies for Environment and Materials (17/07/2014), grade: 110/110 *cum laude.*

<u>October 20011 – July 2014</u>

University of Bologna - Department of Industrial Chemistry "T. Montanari".

• Internship in the company "Saipem spa" in Fano (PU), which involved the study of the management of a controlled landfill for the disposal of wastes deriving from the decommissioning of a phosphoric acid production plant (University-Supervisor: Prof. Giuseppina Montante, Industry-Supervisor: Dr. Michele Peroni).

Secondary School Diploma in Chemistry, grade: 100/100 cum laude.

<u>September 2005 - June 2011</u>

I.I.S. "V. Volterra – E. Elia" (Torrette, AN, Italy).

- During my secondary school I won the "Life Long Learning Programme Leonardo Mobility 2010" and I spent 3 weeks in Derry (Northern Ireland, UK). The first week I followed an English course at the Foyle Language School, while in the other two weeks I worked in a Manufacturing Industry.
- Internship of a month at the University of Ancona (UNIVPM) Department of Agricultural, Food and Environmental Sciences, which involved analysis on biomasses (e.g. CHN elemental composition, evaluation of calorific value, ...).

Job-related skills and competences

I have skills in the manipulation of air and moisture sensitive chemicals and this implies working under strict inert and dry atmosphere (Vacuum/Argon lines, Schlenk techniques). I have good experience in the field of synthesis, characterization and reactivity of transition metal complexes bearing nitrogen ligands for applications in homogeneous catalysis (e.g. carbonylation reactions of unsaturated compounds). During the period spent at the Yale University, I improved my skills related to the organic synthesis and I have learned how to use Glove Boxes for setting up reactions or weighting reagents.

I possess a good knowledge of:

- the technical software: Perkin Elmer ChemDraw® and Mestrelab Research MestReNova.
- Microsoft OfficeTM tools, such as Word, Excel, Power Point and Publisher. I also have basic knowledge of Linux OS.
- the following techniques and instruments: NMR (Bruker Avance 400, Varian Inova 300, Varian Mercury 400 MHz), Autoclave, Knauer HPLC (K-501 pump, K-2501 UV detector), FT-IR (Perkin Elmer). Other characterization techniques used and known are ESI-MS, Cyclic Voltammetry and GC-MS

Scholarships and Awards

- 3rd place at *Biotech-Award 2011* sponsored by University of Urbino "Carlo Bo";
- Scholarship "Fondazione Toso Montanari" for academic merit (bachelor degree) 2012;
- "Premio Cultura d'Impresa 2014" (Rimini) for the best thesis;
- Scholarship "Premi a favore di studenti meritevoli" for academic merit (master degree) 2015/2016;
- Best flash presentation at ISOC 2017 (11th International School of Organometallic Chemistry).
- Scholarship "Marco Polo" (bando n.2 del 2018)

Participation to schools and conferences

- ISOC 2017, 11th International School of Organometallic Chemistry San Benedetto del Tronto (AP, Italy)
 2nd 6th September 2017. "Stereoselective palladium-catalyzed bis-alkoxycarbonylation of internal olefins"-Diego Olivieri, Francesco Fini, Rita Mazzoni, Valerio Zanotti, Carla Carfagna (Poster 51).
- ICOMC 2018, 28th International Conference on Organometallic Chemistry Florence (FI, Italy) 15th 20th July 2018. "Diastereoselective Palladium-Catalyzed bis-Alkoxycarbonylation of 1,2disubstituted Olefins"- Diego Olivieri, Francesco Fini, Rita Mazzoni, Valerio Zanotti, Carla Carfagna (Poster P217).

- 46th National Congress of Inorganic Chemistry Bologna (BO, Italy) 10th - 13th September 2018. "Very general bis-alkoxycarbonylation process for the synthesis of substituted succinic diesters"- Diego Olivieri, Francesco Fini, Rita Mazzoni, Valerio Zanotti, Carla Carfagna (Oral Communication OC49, pag. 76).
- ISC 2020, International School of Chemistry Camerino (MC, Italia) Web Edition
 st 6th September 2020. "Palladium catalyzed bis-alkoxycarbonylation of variously substituted alkenes" Diego Olivieri, Riccardo Tarroni, Gabriele Manca, Carlo Mealli, Carla Carfagna (Abstract P26).

Personal skills and competences

- Mother tongue: Italian
- Other languages: English (B2)
- Driving licence: B

I really like traveling and reading, in particular fantasy novels. I'm interested in cinema and, whenever is possible, I love spending time with my friends and my family. As volunteer, I have done lots of experiences as children and teen animator and, in those experiences, I have learned how to relate myself with children and teenagers. Since the 2011 I'm registered with the AVIS (Associazione Volontari Italiani Sangue) as blood donor. Since the 2017 I'm registered with the Italian Chemical Society (SCI).

Other work experiences

April 2012 - October 2014

I've worked at *Pinacoteca Diocesana* (Diocesan Museum), P.zza Garibaldi, 3, 60019 Senigallia (AN), as museum guide.

Publications

- <u>D. Olivieri</u>, F. Fini, R. Mazzoni, S. Zacchini, N. Della Ca', G. Spadoni, B. Gabriele, R. Mancuso, V. Zanotti, C. Carfagna, "Diastereospecific Bis-Alkoxycarbonylation of 1,2-disubstituted Olefins Catalyzed by Aryl α-Diimine Palladium(II) Catalysts", Adv. Synth. Catal. 2018, 360, 3507-3517.
 - Front Cover Picture (Adv. Synth. Catal. 2018, 360, 3425)
 - Very Important Publication
- 2. R. Mancuso, R. Miliè, A. Palumbo Piccionello, <u>D. Olivieri</u>, N. Della Ca', C. Carfagna, B. Gabriele, "Catalytic Carbonylative Double Cyclization of 2-(3-Hydroxy-1-yn-1-yl)phenols in Ionic Liquids Leading to Furobenzofuranone Derivatives", J. Org. Chem. **2019**, 84, 7303–7311.
- 3. D. Huang, <u>D. Olivieri</u>, Y. Sun, P. Zhang, T. R. Newhouse, "Nickel-Catalyzed Difunctionalization of Unactivated Alkenes Initiated by Unstabilized Enolates", J. Am. Chem. Soc. **2019**, 141, 16249-16254.
- 4. <u>D. Olivieri</u>, R. Tarroni, N. Della Ca', R. Mancuso, B. Gabriele, G. Spadoni, C. Carfagna, *"Bis-Alkoxycarbonylation of Acrylic Esters and Amides for the Synthesis of 2-Alkoxycarbonyl or 2-Carbamoyl Succinates"*, *Adv. Synth. Catal.* **2020**, *362*, 533-544.
 - Front Cover Picture (Adv. Synth. Catal. 2020, 362, 437)
 - Very Important Publication
- 5. C. Mealli, G. Manca, R. Tarroni, <u>D. Olivieri</u>, C. Carfagna, "A Computational Overview of a Pd-Catalyzed Olefin bis-Alkoxycarbonylation Process", Organometallics **2020**, *39*, 1059-1069.
- 6. R. Mancuso, I. Ziccarelli, C. S. Pomelli, C. Cuocci, N. Della Ca', <u>D. Olivieri</u>, C. Carfagna, B. Gabriele "Unprecedented cooperative DBU-CuCl₂ catalysis for the incorporation of carbon dioxide into homopropargylic amines leading to 6-methylene-1,3-oxazin-2-ones", J. Catal. **2020**, 387, 145-153.
- A. Dall'Anese, M. Fiorindo, <u>D. Olivieri</u>, C. Carfagna, G. Balducci, E. Alessio, J. Durand, B. Milani, "*Pd-Catalyzed CO/Vinyl Arene Copolymerization: when the Stereochemistry is Controlled by the Comonomer*", *Macromolecules* 2020, 53, 7783-7794.
- 8. <u>D. Olivieri</u>, D. Huang, A. K. Bodnar, S. Yu, T. R. Newhouse, "Zinc-mediated anionic cyclization of unstabilized ketone enolates with unactivated alkenes", Tetrahedron 2020, 76, Article Number: 131417.

04/05/2021 Diego Olivieri