

Valentina CARBONI

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Nationality: Italian | Date of birth: 28/05/1987

Driving licence: B, own car



Postdoctoral Researcher: synthesis and characterization of photoactive compounds.

PROFESSIONAL EXPERIENCE

Gen. 2015 - to date **Research fellow** at Università di Bologna (Bologna, Italy)
Characterization of liposomes (LUVs) by using DLS and UV-Vis absorption/emission spectroscopy. Study of the release kinetic of luminescent probes inserted in the liposomal core in the presence of photoactive guests embedded in the phospholipid bilayer of liposomes.

Feb. 2014 - Sep. 2014 Visiting **Research Student** at Université de Montreal (Montreal, Canada)
Synthesis and study of the anionophoric activity of a new photoactive anion transporter inserted in the phospholipid bilayer of liposomes.

Oct. 2011 - Dec. 2011 **Graduate Student Researcher** at Università di Camerino (Camerino, Italy)
Chemo- and regioselective synthesis of biologically active organic compounds.

CONFERENCES AND COURSES

Nov. 2014 Conference: "Italian Photochemistry Meeting 2014" (Abbiategrasso, Italy)
Oral communication: "Azobenzene for the transport of small molecules and ions across liposomal membranes"

Nov. 2013 Conference: "Italian Photochemistry Meeting 2013" (Potenza, Italy)
Oral communication: "Azobenzene-based photoactive nanoscale containers"

Jun. 2013 National introductory photochemistry course. (Bologna, Italy)

Jan. 2013 Course "D.Lgs. 81/08 - "FORMATION OF THE WORKER" (general and specific chemical formation) (Bologna, Italy)

Jan. 2013 European Winter School On Physical Organic Chemistry (Bressanone, Italy)
Flash presentation and poster: "Photocontrolled Assembly/Disassembly of a Pseudorotaxane System in a Compartmentalized Solution Environment"

Aug. 2010 Summer School "Advanced Catalysis and Organometallic Chemistry" (Camerino, Italy)

SKILLS

- Photophysical characterization of luminescent compounds performed in solution, solid state and frozen matrix.
- Photophysical and photochemical characterization of photoactive organic compounds and photochemical quantum yield determination.
- Voltammetric techniques (CV e DPV).
- Emission anisotropy and circular dichroism measurements.
- Liposomes characterization by DLS and measurements about the release kinetic of luminescent probes inserted in the liposomal core.
- Synthesis of organic compounds and characterization by ESI-MS and NMR.
- Scientific writing.

Languages - ITALIAN - GERMAN, notions
- ENGLISH, professional knowledge

EDUCATION

Apr. 2015 **Ph.D** in Chemistry, curriculum Nanoscience and Nanotechnology
Alma Mater Studiorum - Università di Bologna, Italy

Oct. 2011 **Master Degree** in Chemistry and Advanced Chemical Methodologies, curriculum Synthesis and Molecular Reactivity (110/110 cum laude)
Università di Camerino, Italy

Jun. 2009 **Bachelor Degree** in Chemistry (110/110 cum laude)
Università di Camerino, Italy

PUBLICATIONS

"Photoactive nanodevices for potential biological applications" (Ph.D thesis, 2015)

M.Baroncini, C. Gao, V. Carboni, A. Credi, E. Previtera, M. Semeraro, M. Venturi, S. Silvi "Light control of stoichiometry and motion in pseudorotaxanes comprising a cucurbit[7]uril wheel and an azobenzene-bipyridinium axle". *Chemistry - A European Journal*, 2014. (DOI: 10.1002/chem.201402821).

"Synthesis of small molecules by selective additions of carbanions to C=X bonds promoted by CeCl₃ as Lewis acid." (Master degree thesis, 2011)

"Mild aminolysis of lactones in the preparation of drugs for the nervous central system." (Bachelor degree thesis, 2009)

PERSONAL SKILLS

- Ability to manage and organize activities, ability to plan and coordinate the work with precision and punctuality.
- Ability to organize work and to work with various levels of autonomy.
- Flexible and used to working in a multicultural context, team - oriented and multidisciplinary .
- Pragmatic, responsible and independent.
- Clear and precise in written and oral communication .

INTERESTS

- Volley, boxe.
- Travelling, cooking, languages.

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