

## DAVIDE RAVELLI - *Curriculum Vitae et Studiorum*

Since November 2015, Davide Ravelli (DR) is a **non-tenured research assistant (RTD-A)** at the PhotoGreen Lab (Department of Chemistry, University of Pavia; see: [www.unipv.it/photogreenlab](http://www.unipv.it/photogreenlab)). In 2015, his project entitled "Organic Synthesis via Visible Light Photocatalytic Hydrogen Transfer" has been funded on the **SIR (Scientific Independence of Young Researchers)** call for proposal by MIUR (Italian Ministry of Education, Universities and Research). His main research interests are in the frame of **organic photochemistry** and the attending applications in various fields, particularly in **organic synthesis**, and in the behavior of **photogenerated high-energy species**. He is highly interested in the discovery of methods for the facile generation of valuable intermediates (mainly radicals and diradicals). In the last years, he has been deeply involved in the study of Hydrogen Atom Transfer - HAT - reactions, promoted both by excited molecules as well as from biologically-relevant diradicals, including didehydrotoluenes (DHTs). The experimental activity has been supplemented by theoretical work (exploiting quantum chemical calculations), aimed at streamlining the processes under investigation.



### EDUCATION AND PROFESSIONAL POSITIONS

- 2016- **Non tenured research assistant (RTD-A)** - Department of Chemistry, University of Pavia.
- 2017 **Visiting Associate Research Scholar** in the group of prof. R. R. Knowles (**Princeton University**, NJ, USA; from march to may).
- 2013-2015 **Post-Doctoral Research Fellow** - Department of Chemistry, University of Pavia (Fondazione Cariplo project: "Antitumorals: Photochemistry beyond enynes", PI: prof. M. Fagnoni).
- 2012 **Post-Doctoral Research Fellow** - Department of Chemistry, University of Pavia (Fondazione Cariplo project: "New innovative nanostructure materials for lithium-air, high-energy rechargeable batteries", PI: prof. P. Mustarelli).
- 2008-2011 PhD - Department of Chemistry, University of Pavia. Thesis title: "Photocatalyzed Reactions: a Green Tool in Organic Synthesis" (Tutor: prof. A. Albini).  
**Stages at:** - Institut de Chimie des Substances Naturelles (**ICSN**) at the CNRS in Gif-sur-Yvette - Paris, France (with prof. E. Lacôte); - **University of Padova** (with prof. A. Bagno); - LCA-lab srl, a spin-off at the **ENEA** (Italian National Agency for New Technologies, Energy and Sustainable Economic Development) center in **Bologna** (with Ing. P. Neri).
- 2007-2008 Master degree in Chemistry - Department of Chemistry, University of Pavia.
- 2003-2006 Bachelor degree in Chemistry - Department of Chemistry, University of Pavia.

DR is currently a co-author of **66 publications (22 as the first author; 13 as the corresponding author)** in international peer-reviewed journals (including **4 chapters in multi-authors books**), mainly in the area of organic photochemistry, with a **h-index of 19** (source: Scopus; Author ID: 25629901400). He has a total Impact Factor (IF) around **540** and a mean IF > **8**. In the last five years (2012-2016), his scientific production has been around **8 publications per year**. In april 2017 he obtained the "Abilitazione Scientifica Nazionale" (ASN) for the role of "Associate professor". He has been **invited to write a MiniReview** (on Photocatalytic Hydrogen Atom Transfer) for *ChemCatChem* (January 2015) and **to contribute to special issues on photocatalysis** for the *J. Org. Chem.* (April 2016) and the *Eur. J. Org. Chem.* (November 2016). Furthermore, he has also been **invited to give a presentation** at the 2015 edition of "Avogadro Colloquia" and to **deliver seminars** at JKU Linz (Austria) in the series of the Austrian Chemical Society (May 2016) and at the University of Padova (Italy; October 2016). Since July 2016 he is Section **Editorial Board Member** of the journal *Molecules*, in the Green Chemistry section. He also served as reviewer for international peer-reviewed journals, including *ACS Catal.*, *Adv. Synth. Catal.*, *Catalysts*, *ChemPhotoChem*, *ChemPlusChem*, *Chem. Rev.*, *Coatings*, *Curr. Org. Chem.*, *Eur. J. Org.*

*Chem., Inorg. Chem., J. Org. Chem., Materials, Molecules, Tetrahedron Lett.*. DR attended both national and international meetings presenting several contributions, including 16 oral communications as the presenting author.

The scientific work of DR is accompanied by teaching activities: starting from October 2015, he has been in charge of the "Green Chemistry" course for the degrees in Chemistry and Biotechnology at the University of Pavia. Since 2008, he has also been involved in several supporting activities through assistance in laboratory courses and lectures (for the degrees in Chemistry and Biological Sciences at the University of Pavia), and he has been the MSc thesis (co-)supervisor of several students. Since 2009, he has been the tutor (for the Organic Chemistry part) of the Italian Team participating at the International Chemistry Olympiads (IChO).

Several collaborations are currently in progress with: **prof. I. Ryu** (Osaka Prefecture University, Japan) in the field of radical chemistry, **prof. F. Cavani** (University of Bologna, Italy) in the computational modeling of catalytic processes, **Dr. C. Samorì** (University of Bologna, Italy) in the field of environmental chemistry, **prof. G. Knoer** (Johannes Kepler University - JKU -, Linz, Austria) on the use of porphyrin complexes as photocatalysts, **prof. S. Bonesi** (Universidad de Buenos Aires, Argentina) in the field of computational simulation of organic molecules' properties, and with further groups in the University of Pavia (**prof. P. Mustarelli, prof. E. Quartarone, prof. A. Profumo, Dr. D. Merli**) in the field of chemistry of materials and environmental chemistry.

#### • AWARDS

- 2017 "Ciamician Medal" promoted by the Organic Chemistry Division of the Italian Society of Chemistry (SCI).
- 2017 International award "Vincenzo Caglioti" promoted by the Accademia Nazionale dei Lincei.
- 2016 "GIF Young Investigator Award" promoted by the Italian Photochemistry Group (GIF).
- 2015 "Reaxys SCI Young Researcher Award 2015"; 3<sup>rd</sup> place in the category "Life Sciences, Medicinal and Organic Chemistry" promoted by Elsevier and Gruppo Giovani of the Italian Society of Chemistry (SCI).
- 2012 Special mention at the 2012 Edition of "Premio Levi" administered by Gruppo Giovani of the Italian Society of Chemistry (SCI).
- 2008 "Premio GIC - Tesi di laurea 2008" (GIC Award - MSc thesis 2008) promoted by the Interdivisional Group of Catalysis (GIC) of the Italian Society of Chemistry (SCI).
- 2008 "Premi per Tesi di Laurea Specialistica in Discipline Chimiche" (MSc thesis in Chemical Sciences Award) promoted by Federchimica.

#### • ORGANIZATION OF SCIENTIFIC MEETINGS (among others)

- 2017 Organic chemistry day in Pavia, Pavia, Italy (Member of the organizing committee).
- 2014 Organic chemistry day in Pavia, Pavia, Italy.
- 2012 XXXIV<sup>th</sup> meeting of the Italian Chemical Society - Organic Chemistry Division, Pavia, Italy.
- 2011 Green Chemistry, Safe Chemistry (2<sup>nd</sup> edition), Pavia, Italy.
- 2010 "Photochemical Sciences. A look into the future", international conference on photochemistry, Ferrara, Italy.
- 2009 Green Chemistry, Safe Chemistry, Pavia, Italy.

#### • MEMBERSHIP OF SCIENTIFIC SOCIETIES

Member of the "Italian Society of Chemistry" (SCI).

Member of the Interdivisional Groups of "Green Chemistry" and "Catalysis" of the Italian Society of Chemistry (SCI).

Member of the "Italian Group of Photochemistry" (GIF).

Member of the "European Photochemistry Association" (EPA).