

Prof. Dr. Paolo Melchiorre (29/05/1973) - Italian
ICREA Research Professor & ICIQ Senior Group Leader
Institute of Chemical Research of Catalonia (ICIQ)



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Educational and Professional Career: Paolo Melchiorre studied Chemistry at the University of Bologna – Alma Mater Studiorum (Italy), where he graduated in 1999. He received his PhD in Chemistry in 2003 at Bologna University working in the area of asymmetric catalysis, under the direction of Professor Achille Umani-Ronchi and the supervision of Professor Pier Giorgio Cozzi. In 2002, he spent a period in Denmark working with Professor Karl Anker Jørgensen at the “Center for Catalysis”, Århus University, where his studies centered on asymmetric organocatalysis. In 2003, Paolo worked as a postdoctoral associate with Professor Giuseppe Bartoli, at the Industrial Chemistry Faculty of the Bologna University. In October 2007 he took a permanent position as an Assistant Professor at Bologna University. In September 2009 Paolo joined the Institute of Chemical Research of Catalonia (ICIQ) in Tarragona as an ICREA (Catalan Institution of Research and Advanced Studies) Professor and ICIQ Group Leader.

AWARDS & DISTINCTIONS

- 2007 - Recipient of the “**G. Ciamician**” **Gold Medal** of the Italian Chemical Society.
- 2008 - Recipient of the **Liebig Lectureship** awarded by the German Chemical Society
- 2009 - **Thieme** Journal Prize
- 2009 - ICREA (Institució Catalana de Recerca i Estudis Avançats) Research Professor
- 2011 - **ERC Starting Grant** to carry out the 5-year project “ORGA-NAUT: Exploring Chemical Reactivity with Organocatalysis”
- 2013 - Member of the *Advanced Synthesis and Catalysis* (Wiley) Academic Advisory Board
- 2013 - Member of the International Advisory Board of *ChemCatChem* (Wiley)
- 2013 - **JSPS Fellowship** under the FY2013 Program for Research in Japan
- 2014 - **Erdtman Lecture 2014** – Stockholm (Sweden)
- 2015 - **Thieme Lecture** – DOMINOCAT SYMPOSIUM – Aachen (Germany)
- 2015 - **ERC Consolidator Grant** to carry out the 5-year project “CATA-LUX” (2016-2021)
- 2016 - Member of the International Advisory Board of *ChemPhotoChem* (Wiley)
- 2016 - Prize for Scientific Excellence from the Royal Spanish Chemical Society (**RSEQ**)

Research Record

Paolo Melchiorre has authored more than 100 publications in international journals with a high impact factor (e.g. 1 × *Nature*, 2 × *Nature Chemistry*, 28 × *Angewandte Chemie*, 1 × *PNAS*, 1 × *Nature Protocols*, 6 × *the Journal of American Chemical Society*) and four book chapters.

His papers have attracted about 7000 citations - h factor = 50

PM has delivered more than 130 invited lectures and seminars at the national and international level.

Research Interest

His current scientific interests lie on the discovery and mechanistic elucidation of new asymmetric organocatalytic and photochemical processes that address unsolved problems in synthetic methodology. The final aim is to develop environmentally friendly and innovative catalytic methods that will find widespread use in organic synthesis.

Selected Recent Publications

- M. Silvi, C. Verrier, Y. Rey, L. Buzzetti, P. Melchiorre, “Visible-Light Excitation of Iminium Ions Enables the Enantioselective β -Alkylation of Enals” *Nature Chem.* **2017**, DOI: 10.1038/nchem.2748.

- J. J. Murphy, D. Bastida, S. Paria, M. Fagnoni, P. Melchiorre, “Asymmetric Catalytic Formation of Quaternary Carbons by Iminium Ion Trapping of Radicals” *Nature* **2016**, *532*, 218–222.

- E. Arceo, I. D. Jurberg, A. Álvarez-Fernández, P. Melchiorre, “Photochemical Activity of a Key Donor–Acceptor Complex Can Drive Stereoselective Catalytic α -Alkylation of Aldehydes” *Nature Chem.* **2013**, *5*, 750-756.