

Paolo Melchiorre

Date of birth:	May 29, 1973
Nationality:	Italian
Position:	Assistant Professor, Alma Mater Studiorum, Università di Bologna (Italy)
Education:	1992 Liceo Scientifico "Enrico Fermi", Bologna 1999 Chemistry, Università di Bologna 2003 PhD under the supervision of Prof. Achille Umani-Ronchi and direction of Prof. Pier Giorgio Cozzi, "Catalytic and Stereoselective Processes in Organic Synthesis", Università di Bologna 2002 Research period with Prof. Dr. Karl Anker Jørgensen, Center for Catalysis, Aarhus University, Denmark 2004–2006 postdoc position with Prof. Giuseppe Bartoli, Università di Bologna
Awards	2007 G. Ciamician Medal awarded by the Italian Chemical Society 2008 Liebig Lecture Award by the German Chemical Society 2009 Thieme Journal Prize
Current research interests:	Discovery and mechanistic elucidation of new asymmetric organocatalytic processes and their application in drug discovery research: in particular, organocatalytic cascade reactions offer a rapid access to complex, enantiopure, small-molecule screening collections that may increase the probability of success in the identification of drug-candidate structures
Hobbies:	Reading, football, traveling, and camping



P. Melchiorre

The author presented on this page has recently published his **10th article** since 2000 in *Angewandte Chemie*:
"Light in Aminocatalysis: The Asymmetric Intermolecular α -Alkylation of Aldehydes": P. Melchiorre, *Angew. Chem.* **2009**, 121, 1386–1389; *Angew. Chem. Int. Ed.* **2009**, 48, 1360–1363.

My most exciting discovery to date has been... always the last one (or better still, the next one).

The biggest challenge facing scientists is... the responsible use of knowledge and scientific power for the betterment of humanity.

If I could have dinner with three famous scientists from history, they would be... Leonardo da Vinci, Charles Darwin, and Primo Levi.

My first experiment was... when I was six, trying to synthesize superglue (by mixing shampoo and spices from my mother's kitchen) to block up the door lock of my 'terrible' little neighbor. Of course, I failed.

If I wasn't a scientist, I would be... a journalist, but who knows?!

In a nutshell, my research involves... solving a code-breaking board game (such as Mastermind), and sailing toward unexplored worlds (like Colombo).

The secret of being a successful scientist is... I hope to find the answer in the future. But I believe that curiosity for the truth and ethical integrity are essential requirements.

The best advice I have ever been given is... do not let your passion for science interfere with your family life (from my father, a chemist).

If I could go back in time and do any experiment, it would be... Pasteur's separation of the 'right handed' from 'left handed' crystal salts of racemic tartaric acid by using tweezers: it was a tedious experiment, but it shed light on chirality!

I would have liked to have discovered... the scientifically-based heliocentrism cosmology that displaced the Earth from the center of the universe (thus starting the Copernican Revolution).

My favorite author (science) is... David W. C. MacMillan.

My favorite book is... "Il Sistema Periodico" (The Periodic Table), by Primo Levi.

My 5 top papers:

1. "The First Catalytic Enantioselective Nozaki-Hiyama Reaction": M. Bandini, P. G. Cozzi, P. Melchiorre, A. Umani-Ronchi, *Angew. Chem.* **1999**, 111, 3558–3561; *Angew. Chem. Int. Ed.* **1999**, 38, 3557–3559.
2. "Direct Enantioselective Michael Addition of Aldehydes to Vinyl Ketones Catalyzed by Chiral Amines": K. A. Jørgensen, P. Melchiorre, *J. Org. Chem.* **2003**, 68, 4151–4157.
3. "Asymmetric Amine-catalyzed α -Alkylation of Aldehydes via Iminium Ion Intermediates Generated from Arylsulfonyl Indoles": R. R. Shaikh, A. Mazzanti, M. Petrini, G. Bartoli, P. Melchiorre, *Angew. Chem.* **2008**, 120, 6232–6265; *Angew. Chem. Int. Ed.* **2008**, 47, 6138–6171—Review (see frontispiece).
4. "Organocatalytic Asymmetric Aziridination of Enones": F. Pesciaoli, F. De Vincentiis, P. Galzerano, G. Bencivenni, G. Bartoli, A. Mazzanti, P. Melchiorre, *Angew. Chem.* **2008**, 120, 8831–8834; *Angew. Chem. Int. Ed.* **2008**, 47, 8703–8706.
5. "Proline-Catalyzed Asymmetric Formal α -Alkylation of Aldehydes via Vinyllogous Iminium Ion Intermediates Generated from Arylsulfonyl Indoles": R. R. Shaikh, A. Mazzanti, M. Petrini, G. Bartoli, P. Melchiorre, *Angew. Chem.* **2008**, 120, 8835–8838; *Angew. Chem. Int. Ed.* **2008**, 47, 8707–8710.

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