

CURRICULUM VITAE

PERSONAL INFORMATION

Date and place of Birth: March 23th 1971 Carmagnola (TO), Italy

Nationality: Italian

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Claudia Barolo graduated in Industrial Chemistry (110/110 cum laude, with a thesis work on “Synthesis and characterisation of high hyperpolarizability molecules for optoelectronic devices”) at the University of Torino in 1997, and in 2001, she got the Ph.D. in Chemical Sciences at the same University with a thesis entitled: “Novel fluorophores and dipolar and octopolar chromophores for fundamental studies and applications in Photonics”. In 2004 she obtained the title of Specialist in Chemical Synthesis at the University of Milano with a thesis on “Functionalized oligopyridyl as multidentate ligands in DSC photosensitizers”.

In 2002 she started a post –doc at the LPI, EPFL, Lausanne (CH) under the supervision of Prof. M. Grätzel on the “Synthesis of Novel Photosensitizers for Nanocrystalline Solar Cells”. In 2004-2005 she worked as a post-doc at the University of Torino developing the activity “Biosensors and nanostructured surfaces –neurones interactions.”

In October 2006 she was appointed as Assistant professor and at present she is Associate Professor (since 2014) in Industrial chemistry at the University of Turin. She is currently teaching in the courses of Organic Materials with lab (Ms in Material Science), Industrial Chemistry (Module: Organic Bulk Industry) (BSc in Chemistry and Chemical Technology), Chemistry of Resources and Raw Materials (Module: Renewable Resources) (BSc in Chemistry and Chemical Technology), Industrial Chemistry (Module: Formulation Chemistry) (Ms in Industrial Chemistry) and Chemical and Biochemical Industrial Processes (Ms in Industrial Biotechnology).

From 2001 till now she used to spend some period abroad to improve her knowledge in specific fields:

2001 (Apr-Jun): Fellowship IFATCC, Colour Chemistry Department – University of Leeds (UK), Supervisor: Prof. J. Griffiths

2006 and 2007 Sep.-Oct. and 2008 Mar.-Apr.: Short Term Scientific Mission (COST Action D35/0007/05), LPI (Laboratory for Photonics and Interfaces), EPFL, Lausanne (CH), Supervisor: professor Graetzel

2008-2009 (Sep.-Mar.): International Mobility WWS (World Wide Style) project LPI (Laboratory for Photonics and Interfaces), EPFL, Lausanne (CH).

2010 and 2012 (Jun.-Sep.): Invited Academic Guest in Laboratory for Photonics and Interfaces, EPFL, Lausanne (CH).

2014 (Apr.-May): Invited Professor at UNESP (Bauru Campus, Brasil) (PhD lessons)

Her research activity is mainly devoted to the synthesis and characterization of functional molecules (surfactants and chromogens) and hybrid materials (organo-inorganic) for fine chemicals, having non conventional technological applications (photonics, nanotechnology, biotechnology), with a

special attention to the hybrid solar field. Since 2004 she is member of the NIS Interdepartmental Center of Excellence and in 2013 she became part of the Scientific Committee of the Centre. She was invited as a teacher in International Schools devoted to the Organic Photovoltaics (ISOPHOS 2008 and 2010 and NANOLICHT 2009), as well as to several national and international conferences and dissemination devoted meetings, for investors and industries, in this field. In 2013 she was the organizer of the congress: Dye sensitised solar cells: from materials to devices (<http://www.nis.unito.it/colloquia/dsc/index.php>), with more than 120 participants.

She has participated/coordinated to several founded projects:

- 1999 Young Researcher project: Functionalized Polymeric Materials for electroluminescent devices (Coordinator)
- 2005 CIPE D14 "Biosensors and nanostructured surfaces –neurones interactions" (Post-doc)
- 2006-2010 COST D35 From Molecules to Molecular Devices (Workgroup 0007/05: Molecular Engineering of interfaces of Photonic Devices Based Mesoscopic Oxide Layers) Partners: LPI EPFL, J. Heyrovsky Institute Prague, Royal Institute of Technology Stockholm, NCSR "Demokritos Athens, Centre of Excellence NIS Università di Torino, Linz Institute for Organic Solar Cells University of Linz
- WWS (World Wide Style) University of Turin, 2008-2009
- 2009-2012 FP7, INNOVASOL: "Innovative Materials for Future Generation Excitonic Solar Cells" (Parters: Centro Interdisciplinare Nano-SiSTeMI UniPMN, LPI EPFL, Technische Universität Dresden, Nanoscience Centre University of Cambridge, Centre of Excellence NIS Università di Torino, Instituto de Química, Universidade Estadual de Campinas, Centro di Ricerche Fiat, Solaronix SA)
- 2009-till now DYE POWER Consortium (Original partners: Università di Tor Vergata, Università di Ferrara, Università di Torino, Erg Renew, Permasteelisa, Dyesol). In 2011 she became a member on the Scientific and Technical Committee of the Consortium.
- 2011-2013 DYE HARD, Industrial Regional Project: Development and technological implementation of novel hybrids materials to increase yields in photovoltaic modules. Partners: 4 SME and two universities, C. Barolo was the PI of the project.
- 2012-2015 PRIN DSSCX

The scientific interest and expertise of C. Barolo in the NPs field is mainly focused on the interaction of nanoparticles with organic molecules having selected optical properties. Moreover she recently started to apply, with a good success, the Experimental design methodology both to synthetic processes both to the chemistry of materials. Finally she has been able during her career to actively collaborate with several groups involved in different fields providing selected original materials in order to answer to specific required interaction between the nanoparticle surface and the organic moiety.

C. Barolo is author and co-author of 62 papers on international peer-reviewed journals with impact factor, with more than 1500 citations. She co-authored more than 80 communication to national/international congresses. Her H-factor is 21 (19 without self-citations, Scopus Author ID: 6602578023). She's referee for a series of important journals dealing with Chemistry and Material Science, such as Chemical Communications, ChemSusChem, ACS Applied Materials and Interfaces, Chemistry A European Journal, Journal of Material Chemistry A and C, RSC Advances,

Physical Chemistry Chemical Physics, Advanced Materials and Dyes and Pigments. She's at present Guest Editor of a Special Issue on Energies (Open Access, MDPI). She was/is tutor of more than 50 Bachelor and Master, 3 Ph.D. and 3 post-doc students.

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