

Emma Gallo - Curriculum Vitae

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Personal Details: Birth Date and Place: August 27th 1964, Naples, Italy. Nationality: Italian. Marital Status: Married, two sons.

Education: 1995: PhD in Chemistry '*avec les félicitations du jury*', University of Lausanne (CH) (supervisor: Prof. C. Floriani); 1989: Degree in Chemistry and Pharmaceutical Technologies '*cum Laude*', University of Roma (I); 1982: Scientific High School Diploma (60/60)

Professional Experience: July 2007 - Visiting professor at the University Pierre et Marie Curie Paris VI (F); 2005 - Associate professor at the University of Milan (I); 2001 - Assistant professor at the University of Milan (I); 1998 - Research associate at the University of Milan (I); 1997- Post-doctoral fellowship at the University of Milan (I); 1996 - 'Maitre assistant' at University of Lausanne (CH); 1990 - Visiting researcher at University of Milan (supervisor: Prof. C. Scolastico); 1989 - Industrial researcher at Sigma Tau S.p.A. - Pomezia (Rome, I).

Institutional Experience: Erasmus Coordinator of the Chemistry Department of the Milan University. Vice-president of the Inorganic Division of Italian Chemical Society.

Teaching Activities: Supervisor of PhD and undergraduate students, Lecturer of *General and Inorganic Chemistry* (1st year of Laurea triennale in Biotecnologia), *Inorganic Chemistry A* (1st year of Laurea Magistrale in Scienze Chimiche), *Laboratory of Inorganic Chemistry A*, (1st year of 'Laurea Magistrale in Scienze Chimiche'). 2006-2009 Lecturer of *Inorganic Chemistry-Application*. 2003-2006 Teaching assistant of *Laboratory of Inorganic Chemistry and Materials* (2nd year of Laurea in Chimica). 2000-2003 Lecturer of *Laboratory of Inorganic Chemistry II* (4th year of Laurea in Chimica); 1992-1996 Assistant to chemistry laboratories classes to 1st and 3rd year undergraduate students, University of Lausanne (CH).

Research interest: Homogeneous Catalysis, Coordination Chemistry, Organometallic Chemistry, Mechanistic Studies. The research is mainly devoted to the synthesis of fine chemicals by C-C or C-N bond formation by employing sustainable catalytic processes. Organic azides and diazocompounds are used as atom-efficient reagents to transfer nitrene and carbene functionalities to hydrocarbons respectively. The catalytic activity of metal porphyrins complexes was extensively studied by E. Gallo and more recently, she has focussed on the use of transition metal polyoxometalates (POMs) to catalyse the reactions described above due to the easy and cheap synthesis of these complexes and to their structural diversity and tuneable electronic properties.

E. Gallo is referee of national and international research grants and international journals ISI (Eur.J.Inorg.Chem.; Eur.J.Org.Chem.; Adv.Synth.Catal.; Organometallics; Dalton Trans.; Tetrahedron Lett.; Chem.Comm.; Synlett; J.Porph.Phthal.; Chemical Science; Angew.Chem. J.Am.Chem.Soc.).

She was involved in several MIUR and FIRB financed projects, in ESF-COST CM1203/2012 (Polyoxometalate Chemistry for Molecular Nanoscience, PoCheMoN). In 2007 she was the Principal Investigator in a Galileo Grant financed by the Italian-French University.

E. Gallo is author of 80 peer-reviewed publications (6 invited papers) and 80 communications at national and international conferences (10 invited oral presentations). Citations (Scopus, 3/20/2015): 2433, h-index: 27.

Spoken languages: Italian (mother tongue), English and French (fluent).

Recent publications

- 1) P. Zardi, A. Pozzoli, F. Ferretti, G. Manca, C. Mealli and E. Gallo. 'A mechanistic investigation of the ruthenium porphyrin catalysed aziridination of olefins by aryl azides.' *Dalton Trans.*, **2015**, *44*, 10479-10489.
- 2) P. Zardi, A. Savoldelli, D. M. Carminati, A. Caselli, F. Ragaini and E. Gallo 'Indoles Rather than Triazoles from the Ruthenium Porphyrin-Catalyzed Reaction of Alkynes with Aryl Azides.' *ACS Catal.* **2014**, *4*, 3820-3823
- 3) D. Intrieri, P. Zardi, A. Caselli and E. Gallo. 'Organic azides: "energetic reagents" for the intermolecular amination of C-H bonds'. *Chem. Commun.*, **2014**, *50*, 11440-11453.
- 4) G. Manca, E. Gallo, D. Intrieri, and C. Mealli. 'DFT Mechanistic Proposal of the Ruthenium Porphyrin-Catalyzed Allylic Amination by Organic Azides.' *ACS Catal.* **2014**, *4*, 823-832.
- 5) D. Intrieri, S. Le Gac, A. Caselli, E. Rose, B. Boitrel and E. Gallo. 'Highly diastereoselective cyclopropanation of α -methylstyrene catalysed by a C2-symmetrical chiral iron porphyrin complex.' *Chem. Commun.*, **2014**, *50*, 1811-1813.
- 6) E. Gallo, E. Rose, B. Boitrel, L. Legnani, L. Toma 'DFT Conformational Studies of Chiral Bis-Binaphthyl Porphyrins and Their Metal Complexes Employed as Cyclopropanation Catalysts' *Organometallics* **2014**, *33*, 6081-6088.
- 7) D. Intrieri, M. Mariani, A. Caselli, F. Ragaini, E. Gallo. '[Ru(TPP)CO]-Catalysed Intramolecular Benzylic C-H Bond Amination, Affording Phenanthridine and Dihydrophenanthridine Derivatives.' *Chem. Eur. J.* **2012**, *18*, 10487-10490.
- 8) D. Intrieri, A. Caselli, E. Gallo. 'Cyclopropanation Reactions Mediated by Group 9 Metal Porphyrin Complexes.' *Eur. J. Inorg. Chem.* **2011**, 5071-5081.
- 9) S. Fantauzzi, A. Caselli, E. Gallo. 'Nitrene transfer reactions mediated by metallo-porphyrin complexes'. *Dalton Trans.*, **2009**, 5434-5443.
- 10) S. M. Fantauzzi, E. Gallo, A. Caselli, F. A. C. Ragaini, N. Casati, P. Macchi, S. Cenini. 'The key intermediate in the amination of saturated CH bonds: synthesis, X-ray characterization and catalytic activity of Ru(TPP)(NAr)₂ (Ar = 3,5-(CF₃)₂C₆H₃).' *Chem. Commun.* **2009**, 3952-3954.