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Alessandro Caselli - Curriculum Vitae

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Personal Details

Birth Date and Place: May 10th 1969, Milano, Italy

Nationality: Italian

Marital Status: Married.

Present Position: Associate Professor, University of Milano, Italy.

Education

2000 PhD in Chemistry, University of Lausanne (CH). Title of the thesis: "The Chemistry of d²-Metal Carbenoids Over an Oxo Surface Modeled by Calix[4]arene". Supervisor: Prof. Carlo Floriani

1995 Degree in Chemistry, University of Milano. Title of the thesis: "Idrolisi di esteri stericamente impediti mediante anticorpi catalitici: sintesi degli apteni e loro impiego nella fase di immunizzazione". Relatore: Prof. Giancarlo Jommi

1989 Classical High School Diploma.

Professional Experience

2015 Associate Professor at the University of Milano (Italy), Department of Chemistry, Sezione di Chimica Inorganica Metallorganica e Analitica "Lamberto Malatesta".

2002 Assistant Professor at the University of Milano (Italy), Department of Chemistry, Sezione di Chimica Inorganica Metallorganica e Analitica "Lamberto Malatesta".

2000 Post-doctoral fellowship at the University of Milano (Italy), Dipartimento di Chimica Organica e Industriale.

1996 PhD student at the University of University of Lausanne (CH), Department of Inorganic and Analytical Chemistry.

1995 Visiting researcher at University of Milano, Dipartimento di Chimica Organica e Industriale. (supervisor: Prof. Giancarlo Jommi).

1992 Erasmus experience at University of Valencia (Spain), Department of Organic Chemistry (supervisor: -Prof. Alberto Marco).

Teaching Activities

2000-present Supervisor of PhD and undergraduate students, University of Milano (Italy).

2003-present Lecturer, "Metallorganic Chemisrty", (1st year of "Laurea Magistrale in Scienze Chimiche"), University of Milano (Italy).

2012-present Lecturer, "Laboratory of Inorganic Chemistry A", (1st year of "Laurea Magistrale in Scienze Chimiche"), University of Milano (Italy).

2008-2010 Lecturer, "Laboratory of General and Inorganic Chemistry", (1st year of "Laurea in Chimica"), University of Milano (Italy).

2003-present Teaching Assistant, "Laboratory of Inorganic Chemistry and Materials", (2nd year of "Laurea in Chimica"), University of Milano (Italy).

2003-present Teaching Assistant, "Laboratory of Inorganic Chemistry A", (1st year of "Laurea Magistrale in Scienze Chimiche), University of Milano (Italy).

1996-2000 Assistant to laboratories of chemistry classes to 1st year undergraduate students, University of Lausanne (Switzerland).

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

Research Interests: Homogeneous Catalysis, Coordination Chemistry, Organometallic Chemistry, Mechanistic Studies, Asymmetric Synthesis.

Currently, my research interest is focused on the employment in homogeneous catalysis of transition metal complexes with macrocyclic N-ligands, with special attention to the synthesis of new asymmetric ligands starting from easily available chiral pool (*i.e.* amino-acids or sugars) in order to produce cost-effective, energy-efficient and eco-friendly catalysts for use in production of chemicals. The target organic products are high added value fine chemicals and/or structural units of biologically relevant compounds. Particular emphasis is given to innovative technologies and to the mechanistic aspects of the catalytic reactions under study, in order to improve the catalyst design and performances. In recent projects, I moved my interests to the development of new methods which combine the ease of catalyst recovery of heterogeneous systems with the higher performances in terms of activity and selectivity obtained with homogeneous catalysts and to the use of continuous flow conditions.

The research activity resulted in 58 papers on international refereed journals ($h_i = 21$).

Recent Publications

1. Brunilde Castano, Tommaso Pedrazzini, Massimo Sisti, Emma Gallo, Fabio Ragaini, Nicola Casati, **Alessandro Caselli**
"Henry reaction catalysed by copper(I) complexes of a new pyridine-containing macrocyclic ligand"
App. Organomet. Chem. **2011**, *25*, 824-829.
2. Nabil S. Youssef, Ahmed M.A. El Seidy, Marco Schiavoni, Brunilde Castano, Fabio Ragaini, Emma Gallo, **Alessandro Caselli**.
"Thiosemicarbazone copper complexes as competent catalysts for olefin cyclopropanations"
J. Organomet. Chem **2012**, *714*, 94-103.
3. Daniela Intriери, Matteo Mariani, **Alessandro Caselli**, Fabio Ragaini, Emma Gallo.
"Ru(TPP)CO-Catalysed Intramolecular Benzylic C-H bond Amination Affording Phenanthridine and Dihydrophenanthridine Derivatives"
Chem. Eur J., **2012**, *18*, 10487–10490.
4. Brunilde Castano, Stefano Guidone, Emma Gallo, Fabio Ragaini, Nicola Casati, Piero Macchi, Massimo Sisti, **Alessandro Caselli**.
"Asymmetric cyclopropanation of olefins catalyzed by Cu(I) complexes of chiral pyridine-containing macrocyclic ligands (Pc-L*)"
Dalton Trans., **2013**, *42*, 2451-2462
5. Brunilde Castano, Paolo Zardi, Yvonne C. Hönemann, Anne Galarneau, Emma Gallo, Rinaldo Psaro, **Alessandro Caselli**, Vladimiro Dal Santo.
"Silica "SHB" chiral Pc-L* copper complexes for halogen-free solvent cyclopropanation reactions"
RSC Adv., **2013**, *3*, 22199-22205.
6. Daniela Intriери, Stephane Le Gac, **Alessandro Caselli**, Eric Rose, Bernard Boitrel, Emma Gallo.

“Highly diastereoselective cyclopropanation of α -methylstyrene catalyzed by a C_2 -symmetrical chiral iron porphyrin complex”

Chem. Commun., **2014**, 50, 1811-1813.

7. Monica Dell’Acqua, Brunilde Castano, Clara Cecchini, Tommaso Pedrazzini, Valentina Pirovano, Elisabetta Rossi, **Alessandro Caselli**, Giorgio Abbiati.

“Mild Regiospecific Synthesis of 1-Alkoxy-isochromenes Catalysed by Well-Defined [Silver(I)(Pc-L)] Complexes”

J. Org. Chem., **2014**, 79, 3494-3505.

8. Brunilde Castano, Emma Gallo, David J. Cole-Hamilton, Vladimiro Dal Santo, Rinaldo Psaro, Alessandro Caselli.

“Continuous flow asymmetric cyclopropanation reactions using Cu(I) complexes of Pc-L* ligands supported on silica as catalysts with carbon dioxide as a carrier”

Green Chem, **2014**, 16, 3202-3209.

9. Paolo Zardi, Alessandro Caselli, Piero Macchi, Francesco Ferretti, Emma Gallo.

“Synthesis of Biologically Relevant Compounds by ruthenium Porphyrin Catalyzed Amination of Benzylic C-H Bonds”

Organometallics, **2014**, 33, 2210-2218.

10. Michael Trose, Monica Dell’Acqua, Tommaso Pedrazzini, Valentina Pirovano, Emma Gallo, Elisabetta Rossi, Alessandro Caselli, Giorgio Abbiati

“[Silver(I)(Pyridine-Containing Ligand)] Complexes As Unusual Catalysts for A^3 -Coupling Reactions”

J. Org. Chem., **2014**, 79, 7311-7320.

11. Daniela Intriери, Paolo Zardi, **Alessandro Caselli**, Emma Gallo.

“Organic azides: “energetic reagents” for the intermolecular amination of C-H bonds”

Chem. Commun., **2014**, 50, 11440-11453.

12. Paolo Zardi, Andrea Savoldelli, Daniela Maria Carminati, Alessandro Caselli, Fabio Ragaini, Emma Gallo.

“Indoles Rather than Triazoles from the Ruthenium Porphyrin-Catalyzed Reaction of Alkynes with Aryl Azides”

ACS Catal., **2014**, 4, 3820-3823.