

Maria del Mar Tristany Soler

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STUDIES

2002-2005: Ph.D. at *Universitat Autònoma de Barcelona* (Spain), Organic Chemistry Department, under the supervision of Prof. Marcial Moreno-Mañas in the study of perfluoroalkylation reactions, the stabilization of metal nanoparticles by heavily fluorinated compounds and the new materials characterization.

1997-2001: Chemistry degree in *Universitat Autònoma de Barcelona* (Spain) with the optional courses in: advanced organic synthesis, stereochemistry and conformational analysis, organic industrial chemistry and chromatographic methods.

JOB EXPERIENCES

07/2008-07/2010: *Laboratoire de Chimie du Coordination du CNRS*, Toulouse (France), post-doctoral researcher (contract collaboration CNRS-SASOL) in the group of Bruno Chaudret and Karine Philippot, to work on the controlled synthesis of metallic nanoparticles.

01/2007-07/2008: *Laboratoire de Chimie du Coordination du CNRS*, Toulouse (France), ANR contract for a post-doctoral position in the group of Bruno Chaudret to work on the preparation of heterogeneous catalyst with specific structure.

11/2006: Institute of Physical Chemistry, *University of Debrecen* (Hungary), one month collaboration in the group of Ferenc Jóó to work on catalytic hydrogenation of phospholipids membrane model with water-soluble dendrimer-based catalyst.

01/2006-12/2006: *Laboratoire de Chimie du Coordination du CNRS*, Toulouse (France), Marie Curie contract for a post-doctoral position in the group of Jean-Pierre Majoral and Anne-Marie Caminade to work on the preparation of water-soluble dendrimers having two types of end groups and their test in catalysis.

09/2003-09/2004: *Universitat Autònoma de Barcelona* (Spain), part-time assistant in teaching laboratories of Organic Chemistry undergraduate courses (86 hours) and Structural Determination in Organic Chemistry undergraduate courses (15 hours).

07/2001-09/2001: *Cognis Iberica S.L.* (surfactants industry), Barcelona (Spain), student in practices in the Analysis Department and Quality Control Department, developing and testing new methods of analysis.

LANGUAGE KNOWLEDGE

English: correct spoken, writing and understanding.

French: intermedium, better spoken and understanding than writing.

Italian: basic.

Spanish and Catalan: native languages.

COMPUTER KNOWLEDGE

Good knowledge of the Microsoft Office pack (Word, PowerPoint, Excel) and of the Internet typical software (Explorer, Netscape Navigator). Experience with chemically

specific software (Chemdraw, Metamorph, Gatan DigitalMicrograph, WINNMR, Image Analysis).

PUBLICATIONS

1. "Self-assembled Platinum Nanoparticles into Heavily Fluorinated Organic Templates: Effect of the Reactive Gas on the Morphology" [M. Tristany](#), M. Moreno-Mañas, R. Pleixats, B. Chaudret, K. Philippot, Y. Guari, V. Matsura, P. Lecante. *New Journal of Chemistry* **2009**, accepted.
2. "Phosphine-free perfluoro-tagged palladium nanoparticles supported on fluorosilica gel: application to the Heck reaction" R. Bernini, S. Cachi, G. Fabrizi, G. Forte, S. Niembro, F. Petrucci, R. Pleixats, A. Prastaro, R. M. Sebastian, R. Soler, [M. Tristany](#), A. Vallribera. *Organic Letters* **2008**, *10*, 561-564.
3. "Formation of nanocomposites of platinum nanoparticles embedded into heavily fluorinated aniline and displaying long range organization". [M. Tristany](#), M. Moreno-Mañas, R. Pleixats, K. Philippot, B. Chaudret, P. Dieudonné, P. Lecante. *Journal of Materials Chemistry* **2008**, *18*, 660-666.
4. "Synthesis of ruthenium nanoparticles stabilized by heavily fluorinated compounds". [M. Tristany](#), B. Chaudret, P. Dieudonné, Y. Guari, P. Lecante, V. Matsura, M. Moreno-Mañas, K. Philippot, R. Pleixats. *Advanced Functional Materials*. **2006**, *16*, 2008-2015.
5. "Palladium nanoparticles entrapped in heavily fluorinated compounds". [M. Tristany](#), J. Courmarcel, P. Dieudonné, M. Moreno-Mañas, R. Pleixats, A. Rimola, M. Sodupe, S. Villarroja. *Chemistry of Materials*. **2006**, *18*, 716-722.
6. "Gold nanoparticles entrapped in heavily fluorinated compounds". M. Moreno-Mañas, R. Pleixats, [M. Tristany](#). *Journal of Fluorine Chemistry*. **2005**, *126*, 1435-38.
7. "Palladium nanoparticles obtained from palladium salts and tributylamine in molten tetrabutylammonium bromide: their use for hydrogenation of olefins". Jean Le Bras, Deb Kumar Mukjerjee, Sara Gonzalez, [Mar Tristany](#), Marcial Moreno-Mañas, Roser Pleixats, Françoise Hénin, Jacques Muzart. *New Journal of Chemistry*. **2004**, *28*, 1550 - 1553.

CONFERENCES PRESENTATIONS AND POSTERS

1. May 2008. *GDR 2922, Matériaux Hybrides Organisés Multifonctionnels*. Biarritz, France. "Synthèse de nanomatériaux hybrides Ru/silice". [Mar Tristany](#), V. Matsura, Y. Guari, K. Philippot, A. Maisonnat, B. Chaudret. Oral Communication.
2. April 2008, *NanoSpain2008*. Braga, Portugal. "Synthesis of Ru and Pt Nanoparticles Stabilized by Heavily Fluorinated Compounds". [M. Tristany](#), B. Chaudret, P. Dieudonné, Y. Guari, P. Lecante, V. Matsura, M. Moreno-Mañas, K. Philippot, R. Pleixats. Poster.
3. December 2007, *I Workshop Franco-Brasileiro de Nanotecnologia e Química Organometálica de Superfície*. Maceio, Brazil. "Tunable Synthesis of Nickel Nanoparticles". [Mar Tristany](#), K. Philippot, B. Chaudret. Oral Communication.
4. November 2007, *Catalysis in Aqueous Media*, Toulouse, France. "Towards Janus-type and other types of bifunctional water-soluble dendritic catalysts". [Mar Tristany](#), R. Laurent, J. P. Majoral, A. M. Caminade. Poster.

5. November 2007, *2ème colloque Marocco-Français en Chimie Moléculaire*. Toulouse, France. "Shape-controlled growth of nickel nanoparticles". [Mar Tristany](#), K. Philippot, B. Chaudret. Poster.
6. August 2007, *Fifth International Dendrimer Symposium*, Toulouse, France, "Ru(II) Catalysis in the Presence of Water with a PTA Dendritic Ligand". [P. Servin](#), [Mar Tristany](#), R. Laurent, A.-M. Caminade, J.-P. Majoral, L. Gonsalvi and M. Peruzzini. Poster.
7. January 2007, *Transition metal chemistry and catalysis in aqueous media, 3rd annual AQUACHEM meeting* Debrecen, Hungary. "Towards water-soluble dendrimer-based catalyst". [Mar Tristany](#), P. Servin, R. Laurent, A.-M. Caminade, J.-P. Majoral. Oral Communication.
8. September 2005, *Working group meeting of COST D24/0013/02* Paris, France. "Palladium and gold nanoparticles stabilized by heavily fluorinated compounds". Marcial Moreno-Mañas, Roser Pleixats and [Mar Tristany](#). Oral Communication.
9. June 2005, *Nanoparticules Métalliques en Catalyse (3rd NANOMETCAT)*. Tarragona, Spain. "Preparation and characterization of fluorinated ligand-stabilized ruthenium(0) and platinum(0) nanoparticles". [Mar Tristany](#). Oral Communication.
10. October 2004, *Green Solvents for Synthesis*, Bruchsal, Germany. "Pd-catalysed reactions of alcohols in a molten salt and a new path to pd-nanoparticles". [B. Ganchequi](#), D. Khumar Mukherjee, [M. del Mar Tristany Soler](#), S. Bouquillon, J. Le Bras, R. Pleixats, F. Hénin, M. Moreno-Mañas, J. Muzart. Poster.
11. September 2003, *Trends in Nanotechnology*. Salamanca, Spain, "Perfluorofunctionalization of carbon nanotubes". [G. Gabriel](#), J. Casabo, [M. Tristany](#), M. Moreno-Mañas, M.T. Martinez, C.Miravilles. Poster.

COMPLEMENTARY KNOWLEDGES

Practical courses of Transmission Electron Microscopy (1 week), Quantitative and Statistical Analysis in Morphological Comparative Studies (3 days), Interdisciplinary courses in Nanoscience and Nanotechnology (20 hours) and Dermocosmetic formulation (20 hours).