

CURRICULUM VITAE

Personal Information

- Name: Patricia Lara Muñoz
- Date of Birth: 29th December 1981
- Nationality: Spanish
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Education

- B. S. in Chemistry. June 2004. Faculty of Chemistry, University of Seville, Spain.
- MSc in Chemistry. June 2006. "Formation and cleavage of C—H, C—C and C—O bonds of alkyl aryl ethers mediated by Tp^{Me2}Ir complexes". Faculty of Chemistry, University of Seville, Spain.
- Ph. D. Thesis Cum Laude, 20th April 2009. "Activation of organic molecules mediated by iridium complexes containing Tp ligands". University of Seville, Spain.

Research experience

Grants

- October 2003/June 2004: Undergraduate Fellowship in the Department of Inorganic Chemistry, Faculty of Chemistry, University of Seville. Working under the supervision of Prof. Ernesto Carmona Guzmán.
- September 2004/December 2004: Graduate Fellowship in Organometallic Chemistry (Introducción a la Investigación), Instituto de Investigaciones Químicas (University of Seville-CSIC). Working under the supervision of Prof. Ernesto Carmona Guzmán.
- January 2005/April 2005: I3P Predoctoral fellowship, Instituto de Investigaciones Químicas, University of Seville-CSIC. Supervisors: Prof. Ernesto Carmona Guzmán and Dr. Manuel López Poveda.
- May 2005/December 2008: FPU Predoctoral fellowship, Instituto de Investigaciones Químicas, University of Seville-CSIC. Supervisors: Prof. Ernesto Carmona Guzmán and Dr. Manuel López Poveda.
- January 2009/August 2009: Postdoctoral researcher at the Instituto de Investigaciones Químicas, Seville (Spain).

Participation in research projects

- September 2004/December 2007: participant in the project "*Estudios estructurales y de reactividad de diversos compuestos organometálicos estabilizados mediante ligandos auxiliares polidentados*". Funding: CSIC-University of Seville (CTQ2004-00409/BQU). Main researcher: Dr. Margarita Paneque Sosa.
- September 2006/August 2009: participant in the project "*Compuestos de los elementos 9,10 y 12 que contienen enlaces M-C. Aspectos fundamentales y aplicaciones prácticas*". Funding: Junta de Andalucía (FQM-672). Main researcher: Prof. Ernesto Carmona Guzmán.
- January 2008/August 2009: participant in the project: "*Síntesis de compuestos organometálicos de Rh, Ir y Pt. Activación y funcionalización de enlaces C-H de los hidrocarburos*". Funding: Junta de Andalucía (FQM-3151). Main researcher: Dr. Salvador Conejero Iglesias.
- January 2007/August 2009: "*Desarrollo de entidades organometálicas para reacciones de funcionalización selectiva en moléculas orgánicas*" Funding: Spanish Ministry of Education and Science, Consolider-Ingenio 2010, CSD2007-00006). Main researcher: Prof. Miguel Ángel Esteruelas Rodrigo.

Publications

- 1.- "Formation and Cleavage of C—H, C—C, and C—O Bonds of *ortho*-Methyl-Substituted Anisoles by Late Transition Metals". Lara, P.; Paneque, M.; Poveda, M. L.; Salazar, V.; Santos, L. L.; Carmona, E. *J. Am. Chem. Soc.* **2006**, *128*, 3512.
- 2.- "Rearrangement of Pyridine to Its 2-Carbene Tautomer Mediated by Iridium". Álvarez, E.; Conejero, S.; Lara, P.; López, J. A.; Paneque, M.; Petronilho, A.; Poveda, M. L.; del Río, D.; Serrano, O.; Carmona, E. *J. Am. Chem. Soc.* **2007**, *129*, 14130.
- 3.- "Monodentate, N-Heterocyclic Carbene-Type Coordination of 2,2'-Bipyridine and 1,10-Phenanthroline to Iridium". Conejero, S.; Lara, P.; Paneque, M.; Petronilho, A.; Poveda, M. L.; Serrano, O.; Vattier, F.; Álvarez, E.; Maya, C.; Salazar, V.; Carmona, E. *Angew. Chem., Int. Ed.* **2008**, *47*, 4380.
- 4.- "Experimental and Computational Studies on the Iridium Activation of Aliphatic and Aromatic C—H Bonds of Alkyl Aryl Ethers and Related Molecules". Lara, P.; Paneque, M.; Poveda, M. L.; Santos, L. L.; Valpuesta, J. E. V.; Carmona, E.; Moncho, S.; Ujaque, G.; Lledós, A.; Álvarez, E.; Mereiter, K. *Chem. Eur. J.* **2009**, *15*, 9034.
- 5.- "Synthetic, Mechanistic and Theoretical Studies on the Generation of Iridium Hydride Alkylidene and Iridium Hydride Alkene Isomers". Lara, P.; Paneque, M.; Poveda, M. L.; Santos, L. L.; Valpuesta, J. E. V.; Carmona, E.; Salazar, V.; Moncho, S.; Ujaque, G.; Lledós, A.; Maya, C.; Mereiter, K. *Chem. Eur. J.* **2009**, *15*, 9046.
- 6.- "Ethylene Coordination and Acetylene Dimerization at Tp'Ir(III) Centers". Lara, P.; López-Serrano, J.; Maya, C.; Paneque, M.; Poveda, M. L.; Valpuesta, J. E. V.; Carmona, E. *Organometallic.* **2009**, *28*, 4649.

Stays in Internationally recognized centres

Department of Chemistry, University of Illinois at Urbana-Champaign, IL, USA. June 2007- September 2007. Supervisor: Prof. John Hartwig.

Participation on conferences and courses of scientific determination

2004: Assistance to the **XXII Reunión del Grupo Especializado de Química Organometálica de la Real Sociedad Española de Química**, Ciudad Real (Spain).

2005: P. Lara, M. Paneque, L. L. Santos, E. Carmona, "Activación de Aril Metil Eteres mediante complejos de $\text{Tp}^{\text{Me}_2}\text{Ir}$ " (Poster Presentation), **XXX Reunión Bienal de la Real Sociedad Española de Química**, Lugo (Spain).

2006: C. Maya, P. Lara, M. Paneque, M. L. Poveda, V. Salazar, L. L. Santos, E. Carmona, "Formation and Cleavage of C-H, C—C, and C—O Bonds of *ortho*-Methyl-Substituted Anisoles by Late Transition Metals" (Poster Presentation), **XXII International Conference on Organometallic Chemistry**, Zaragoza (Spain).

2007: J. E. V. Villar, P. Lara, M. Paneque, L. L. Santos, E. Carmona, "Activación de alquil aril éteres mediante complejos de $\text{Tp}^{\text{Me}_2}\text{Ir}$ " (Poster Presentation), **XXXI Reunión Bienal de la Real Sociedad Española de Química**, Toledo (Spain).

2007: E. Carmona, S. Conejero, A. C. Esqueda, P. Lara, A. Petronilho, M. Poveda, O. Serrano, "Tautomería de heterociclos nitrogenados en complejos de iridio (III)" (Poster Presentation), **XXXI Reunión Bienal de la Real Sociedad Española de Química**, Toledo (Spain).

2008: P. Lara, C. Maya, M. Paneque, M. L. Poveda, J. E. Villar, E. Carmona, "Reactividad de moléculas insaturadas con el complejo $\text{Tp}^{\text{Me}_2}\text{Ir}(\text{N}_2)$ " (Oral Communication and Poster), **I Reunión del Equipo Consolider Ingenio 2010**, Ciudad Real (Spain).

2008: P. Lara, C. Maya, M. Paneque, M. L. Poveda, J. E. Villar, E. Carmona, "Reactivity of unsaturated molecules with the $\text{Tp}^{\text{Me}_2}\text{Ir}(\text{N}_2)$ complex" (Poster Presentation), **XXIII International Conference on Organometallic Chemistry**, Rennes (France).

2009: J. E. V. Valpuesta, P. Lara, M. Paneque, M. L. Poveda, E. Carmona, "Reactivity of unsaturated molecules with $Tp^{Tol}Ir$ complexes" (Poster Presentation), **II Reunión del Equipo Consolider Ingenio 2010**, Valencia (Spain).

Languages

- Spanish: mother language.
- English: spoken (good), written (good).