



JOAQUÍN LÓPEZ SERRANO

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Summary of CV

This section describes briefly a summary of your career in science, academic and research; the main scientific and technological achievements and goals in your line of research in the medium -and long- term. It also includes other important aspects or peculiarities.

I studied Chemistry at the University of Murcia, Spain, where I also completed my PhD thesis in 2004 under the supervision of Dr. A. Abad and Prof J. Vicente. Then I joined the group of Prof. S. B. Duckett at the University of York (UK), with a postdoctoral position, where I used NMR techniques to study the mechanism of inorganic reactions. In York I used parahydrogen to hyperpolarize NMR-active nuclei to increase the sensitivity of the NMR experiments and to be able to detect reaction intermediates and study the mechanism of inorganic, organometallic and catalysis reactions. Also, I took part in the initial development of the SABRE hyperpolarization method. In 2005 and 2006 I visited the group of Prof. A. Lledós in the Autonomous University of Barcelona (UAB), Spain, to apply computational methods to the study of the mechanism of the reactions that I followed by NMR in York. In 2008 I returned to Spain and obtained a Ramón y Cajal research fellowship to work at the Instituto de Investigaciones Químicas of Seville, a research centre of the Spanish Council for Scientific Research (CSIC) and the University of Seville. As a member of the group of Prof. E. Carmona, I applied mostly computational methods to assist the studies on organometallic reactivity carried out in the laboratory. In 2016 I joined the University of Seville with a lecturer position and in 2017 I secured a tenured-professor position (Profesor Titular) in the department of inorganic chemistry. In addition to my teaching duties, I continue collaborating with several research groups. I am interested in the study of inorganic and organometallic reaction mechanisms mainly by computational methods and also by doing experimental, mostly NMR, studies.

**C****V****N**

CURRÍCULUM VITAE NORMALIZADO

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General quality indicators of scientific research

This section describes briefly the main quality indicators of scientific production (periods of research activity, experience in supervising doctoral theses, total citations, articles in journals of the first quartile, H index...). It also includes other important aspects or peculiarities.

I have co-authored a total of 60 scientific publications in international journals, 55 in Q1 journals, 12 as corresponding author.

I have more than 1400 citations and a h index = 21

JOAQUÍN LÓPEZ SERRANO

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ScopusID: 56565692400
ResearcherID: A-2267-2011
Date of birth: 28/05/1976
Gender: Male
Nationality: Spain
Country of birth: Spain
Contact province: Seville
Contact address: Instituto de Investigaciones Químicas
Rest of contact address: Amerigo Vespuccio, 49.
Postcode: 41092
Contact country: Spain
Contact aut. region/reg.: Andalusia
Contact city: Sevilla
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Current professional situation

Employing entity: Universidad de Sevilla **Type of entity:** University
Department: Departamento de Química Inorgánica, Facultad de Química
Professional category: Profesor Titular de Universidad
Start date: 19/12/2017
Type of contract: Civil servant **Dedication regime:** Full time

Previous positions and activities

	Employing entity	Professional category	Start date
1	Universidad de Sevilla	Profesor Contratado Doctor	14/01/2016
2	Universidad de Sevilla	Investigador posdoctoral	01/01/2015
3	Universidad de Sevilla	Investigador Ramón y Cajal	01/01/2010
4	Consejo Superior de Investigaciones Científicas	Investigador posdoctoral (JAE-DOC)	01/05/2009
5	Universidad de York	Profesor asociado (Teaching Fellow)	01/05/2008
6	Universidad de York	Investigador posdoctoral	01/11/2004

1 **Employing entity:** Universidad de Sevilla **Type of entity:** University
Professional category: Profesor Contratado Doctor
Start-End date: 14/01/2016 - 27/12/2017



- 2** **Employing entity:** Universidad de Sevilla **Type of entity:** University
Professional category: Investigador posdoctoral
Start-End date: 01/01/2015 - 14/01/2015
Type of contract: Temporary employment contract
- 3** **Employing entity:** Universidad de Sevilla **Type of entity:** University
Professional category: Investigador Ramón y Cajal
Start-End date: 01/01/2010 - 31/12/2014
- 4** **Employing entity:** Consejo Superior de Investigaciones Científicas **Type of entity:** State agency
Professional category: Investigador posdoctoral (JAE-DOC)
Start-End date: 01/05/2009 - 31/12/2009
Type of contract: Temporary employment contract
- 5** **Employing entity:** Universidad de York **Type of entity:** University
Professional category: Profesor asociado (Teaching Fellow)
Start-End date: 01/05/2008 - 30/10/2008
- 6** **Employing entity:** Universidad de York **Type of entity:** University
Professional category: Investigador posdoctoral
Start-End date: 01/11/2004 - 31/07/2007
Type of contract: Temporary employment contract



Education

University education

1st and 2nd cycle studies and pre-Bologna degrees

University degree: Higher degree

Name of qualification: Licenciado en Ciencias Químicas

Degree awarding entity: Universidad de Murcia

Type of entity: University

Date of qualification: 09/09/1999

Doctorates

Doctorate programme: CIENCIAS (QUIMICAS)

Degree awarding entity: Universidad de Murcia

Type of entity: University

Date of degree: 2004

Thesis title: SÍNTESIS Y REACTIVIDAD DE COMPLEJOS DE PALADIO(II) CON GRUPOS ARILO FUNCIONARIZADOS EN ORTO

Thesis director: Vicente-Soler, José; Abad-Baños, José Antonio

Obtained qualification: SOBRESALIENTE CUM LAUDE

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
English	C1	C1	C1	C1	C1

Teaching experience

General teaching experience

1 Name of the course: Química General y Analítica

Type of teaching: In person theory

Type of subject: Obligatory

University degree: Grado en Farmacia

Start date: 2012

Entity: Universidad de Sevilla

Faculty, institute or centre: Facultad de Farmacia

End date: 2013

Type of entity: University

2 Name of the course: Practicas de Laboratorio Operaciones Basicas de Laboratorio

Type of programme: Bachelor's degree

Type of teaching: Laboratory work

Type of subject: Obligatory

University degree: Licenciado en Química



Course given: 1
Start date: 2011
Entity: Universidad de Sevilla
Faculty, institute or centre: Facultad de Química

End date: 2012
Type of entity: University

3 Name of the course: Química Inorgánica Avanzada
Type of teaching: In person theory
Type of subject: Obligatory
University degree: Licenciado en Química
Course given: Cuarto
Start date: 2011
Entity: Universidad de Sevilla
Faculty, institute or centre: Facultad de Química

End date: 2012
Type of entity: University

4 Name of the course: Química Inorgánica
Type of teaching: In person theory
Type of subject: Obligatory
University degree: Grado en Farmacia
Start date: 2016
Entity: Universidad de Sevilla
Faculty, institute or centre: Facultad de Farmacia

Type of entity: University

5 Name of the course: Química Inorgánica Biológica
Type of teaching: In person theory
Type of subject: Optional
University degree: Grado en Química
Start date: 2013
Entity: Universidad de Sevilla
Faculty, institute or centre: Facultad de Química

Type of entity: University

6 Name of the course: QUIMICA BIOINORGANICA
Type of teaching: In person theory
Type of subject: Optional
University degree: Grado en Farmacia
Course given: 2
Start date: 2011
Entity: Universidad de Sevilla
Faculty, institute or centre: Facultad de Farmacia

Type of entity: University

Scientific and technological experience

Scientific or technological activities

R&D projects funded through competitive calls of public or private entities

- 1** **Name of the project:** COMPLEJOS METALICOS CON LIGANDOS CARBENO NHETEROCICLICO Y DIFOSFINO-BORILO: DISEÑO ESTRUCTURAL PARA APLICACIONES CATALITICAS
Geographical area: National
Degree of contribution: Researcher
Entity where project took place: Instituto de Investigaciones Químicas **Type of entity:** University Research Institute
Name principal investigator (PI, Co-PI....): Salvador Conejero Iglesias; María Amor Rodríguez Iglesias
Type of participation: Team member
Code according to the funding entity: CTQ2016-76267-P
Start-End date: 01/01/2017 - 31/12/2019
Total amount: 66.000 €
Dedication regime: Part time
- 2** **Name of the project:** LIGANDOS FOSFORADOS VOLUMINOSOS Y QUELATANTES BIFUNCIONALES EN EL ESTUDIO DE PROCESOS ORGANOMETALICOS FUNDAMENTALES Y EN EL DESARROLLO DE NUEVAS APLICACIONES CATALITICAS
Geographical area: National
Degree of contribution: Researcher
Entity where project took place: Instituto de Investigaciones Químicas **Type of entity:** University Research Institute
Name principal investigator (PI, Co-PI....): Antonio Pizzano Mancera
Type of participation: Team member
Code according to the funding entity: CTQ2016-75193-P
Start-End date: 01/01/2017 - 31/12/2019
Total amount: 120.000 €
Dedication regime: Part time
- 3** **Name of the project:** COMPLEJOS DE METALES NOBLES CON LIGANDOS FOSFORADOS VOLUMINOSOS. ACTIVACION DE ENLACES C-H Y APLICACIONES CATALITICAS
Entity where project took place: Instituto de Investigaciones Químicas **Type of entity:** University Research Institute
Name principal investigator (PI, Co-PI....): Ernesto Carmona Guzman
Funding entity or bodies: MINISTERIO DE ECONOMÍA Y COMPETITIVIDAD
Code according to the funding entity: CTQ2013-42501-P
Start-End date: 01/01/2014 - 31/12/2016
Total amount: 254.100 €
- 4** **Name of the project:** COMPUESTOS ORGANOMETALICOS EN REACCIONES DE ACOPLAMIENTO DESHIDROGENANTE Y TRANSFORMACION DE DIOXIDO DE CARBONO
Geographical area: National



Entity where project took place: Instituto de Investigaciones Químicas

Type of entity: University Research Institute

Name principal investigator (PI, Co-PI....): Salvador Conejero Iglesias; María Amor Rodríguez Iglesias

Code according to the funding entity: CTQ2013-45011-P

Start-End date: 01/01/2014 - 21/12/2016

Total amount: 70.180 €

5 Name of the project: SÍNTESIS Y REACTIVIDAD DE COMPUESTOS ORGOMETÁLICOS y DE COORDINACIÓN FUNCIONALIZADOS

Geographical area: National

Degree of contribution: Researcher

Entity where project took place: Universidad de Murcia

Type of entity: University

Name principal investigator (PI, Co-PI....): José Vicente Soler

Funding entity or bodies:

Comisión Interministerial de Ciencia y Tecnología

Type of entity: State agency

Type of participation: Team member

Code according to the funding entity: BQU2001-0133

Start-End date: 28/12/2001 - 27/12/2014

Dedication regime: Full time

6 Name of the project: ACTIVACIÓN DE ENLACES C-H Y OTROS X-H (X = H, B, SI) MEDIANTE COMPUESTOS ORGANOMETÁLICOS DE RH, IR Y PT. APLICACIONES CATALÍTICAS

Geographical area: National

Degree of contribution: Researcher

Entity where project took place: Instituto de Investigaciones Químicas

Type of entity: University Research Institute

Name principal investigator (PI, Co-PI....): Ernesto Carmona Guzman

Nº of researchers: 15

Name of the programme: OTROS PROGRAMAS DEL PLAN NACIONAL I+D, MINISTERIO DE CIENCIA Y TECNOLOGÍA

Code according to the funding entity: CTQ2010-17476

Start-End date: 01/01/2011 - 31/12/2013

Duration: 1095 days

Total amount: 287.980 €

7 Name of the project: New Chemistry and Catalysis with Hydride Compounds” (HYDROCHEM)

Entity where project took place: University of York **Type of entity:** University

City of entity: York, United Kingdom

Name principal investigator (PI, Co-PI....): Simon Duckett

Funding entity or bodies:

European Union

Name of the programme: MARIE CURIE RESEARCH TRAINING NETWORK

Code according to the funding entity: HPRN-CT-2002-00176

Start-End date: 2005 - 30/09/2006

8 Name of the project: Compuestos Organometálicos de los grupos 6 y 7 (Mo, W, Re). Estudio del enlace metal - metal y aplicaciones catalíticas

Geographical area: National

Degree of contribution: Researcher

Entity where project took place: Instituto de Investigaciones Químicas

Type of entity: University Research Institute



Name principal investigator (PI, Co-PI....): MARIA AMOR RODRIGUEZ IGLESIAS

Nº of researchers: 7

Funding entity or bodies:

MINISTERIO EDUCACIÓN Y CIENCIA

Name of the programme: Ministerio de Ciencia e Innovación

Code according to the funding entity: CTQ2010-15833

Start date: 01/01/2011

Duration: 1095 days

Total amount: 117.370 €

- 9** **Name of the project:** Estudios sobre la funcionalización de sustratos orgánicos mediante reacciones de activación C-H y de hidrogenación con complejos de rodio, rutenio e iridio

Geographical area: Regional

Degree of contribution: Researcher

Entity where project took place: Instituto de Investigaciones Químicas

Type of entity: University Research Institute

Name principal investigator (PI, Co-PI....): MARGARITA PANEQUE SOSA

Nº of researchers: 18

Name of the programme: PROGRAMA DE INCENTIVOS A LOS AGENTES DEL SISTEMA ANDALUZ DEL CONOCIMIENTO

Code according to the funding entity: P09-FQM4832

Start date: 03/02/2010

Duration: 1460 days

Total amount: 179.866 €

- 10** **Name of the project:** DESARROLLO DE ENTIDADES ORGANOMETÁLICAS PARA REACCIONES DE FUNCIONALIZACIÓN SELECTIVA EN MOLÉCULAS ORGÁNICAS

Geographical area: National

Degree of contribution: Researcher

Entity where project took place: Instituto de Investigaciones Químicas

Type of entity: University Research Institute

Name principal investigator (PI, Co-PI....): MARGARITA PANEQUE SOSA

Nº of researchers: 28

Name of the programme: OTROS PROGRAMAS DEL PLAN NACIONAL I+D, MINISTERIO DE CIENCIA Y TECNOLOGÍA

Code according to the funding entity: CSD2007-00006

Start date: 10/12/2007

Duration: 1816 days

Total amount: 432.516 €

Results

Industrial and intellectual property

Title registered industrial property: HYPERPOLARIZING NUCLEI

Type of industrial property: Patent of invention

Inventors/authors/obtainers: Duckett-,Simon B.; Green-,Gary G.; Elliott-,Paul I. P.; JOAQUÍN LÓPEZ SERRANO

Entity holder of rights: The University of York (UK)

Nº of application: 12/452,113

Country of inscription: United States of America

Date of register: 17/06/2008

Conferral date: 10/04/2012

Scientific and technological activities

Scientific production

Publications, scientific and technical documents

- 1** Marina Pérez-Jimenez; Jesús Campos; Joaquín López-Serrano; Ernesto Carmona. Reactivity of a trans-[H-MoMo-H] unit towards alkenes and alkynes: bimetallic migratory insertion, H-elimination and other reactions. *Chemical Communications*. 54, pp. 9186 - 9189. RSC, 24/07/2018.
Type of production: Scientific paper **Format:** Journal
- 2** Juan José Moreno; María F. Espada; Eric Krüger; Joaquín López-Serrano; Jesús Campos; Ernesto Carmona. Ligand Rearrangement and Hemilability in Rhodium(I) and Iridium(I) Complexes Bearing Terphenyl Phosphanes. *European Journal of Inorganic Chemistry*. 2018 - 20-21, pp. 2309 - 2321. 25/03/2018. Available on-line at: <<https://onlinelibrary.wiley.com/doi/abs/10.1002/ejic.201800169>>.
Type of production: Scientific paper **Format:** Journal
- 3** Valentín Hornillos; José A. Carmona; Abel Ros; Javier Iglesias-Sigüenza; Joaquín López-Serrano; Rosario Fernández; José M. Lassaletta. Dynamic Kinetic Resolution of Heterobiaryl Ketones by Zinc-Catalyzed Asymmetric Hydrosilylation. *Angewandte Chemie International Edition*. 57 - 14, pp. 3777 - 3781. 13/02/2018. Available on-line at: <<https://onlinelibrary.wiley.com/doi/abs/10.1002/anie.201713200>>.
Type of production: Scientific paper **Format:** Journal
- 4** Ana Zamorano; Nuria Rendón; Joaquín López-Serrano; Eleuterio Álvarez; Ernesto Carmona. Activation of Small Molecules by the Metal-Amido Bond of Rhodium(III) and Iridium(III) (η^5 -C₅Me₅)M-Aminopyridinate Complexes. *Inorganic Chemistry*. 57 - 1, pp. 150 - 162. 2018. Available on-line at: <<https://doi.org/10.1021/acs.inorgchem.7b02283>>.
Type of production: Scientific paper **Format:** Journal
- 5** María F. Espada; Ana C. Esqueda; Jesús Campos; Miguel Rubio; Joaquín López-Serrano; Eleuterio Álvarez; Celia Maya; Ernesto Carmona. Cationic (η^5 -C₅Me₄R)RhIII Complexes with Metalated Aryl Phosphines Featuring η^4 -Phosphorus plus Pseudo-Allylic Coordination. *Organometallics*. 37 - 1, pp. 11 - 21. 2018. Available on-line at: <<https://doi.org/10.1021/acs.organomet.7b00688>>.

Type of production: Scientific paper**Format:** Journal

- 6** M. Hernandez-Juarez; J. Lopez-Serrano; P. Gonzalez-Herrero; N. Rendon; E. Alvarez; M. Paneque; A. Suarez. Hydrogenation of an iridium-coordinated imidazol-2-ylidene ligand fragment. Chem. Commun.54, pp. 3843 - 3846. The Royal Society of Chemistry, 2018. Available on-line at: <<http://dx.doi.org/10.1039/C8CC00420J>>.

Type of production: Scientific paper**Format:** Journal

- 7** Pablo Rios; Marta Rosello-Merino; Orestes Rivada-Wheelaghan; Javier Borge; Joaquin Lopez-Serrano; Salvador Conejero. Selective catalytic synthesis of amino-silanes at part-per million catalyst loadings. Chem. Commun.54, pp. 619 - 622. The Royal Society of Chemistry, 2018. Available on-line at: <<http://dx.doi.org/10.1039/C7CC08530C>>.

Type of production: Scientific paper**Format:** Journal

- 8** Laura Ortega-Moreno; Riccardo Peloso; Joaquín López-Serrano; Javier Iglesias-Sigüenza; Celia Maya; Ernesto Carmona. A Cationic Unsaturated Platinum(II) Complex that Promotes the Tautomerization of Acetylene to Vinylidene. Angewandte Chemie International Edition. 56 - 10, pp. 2772 - 2775. 2017. Available on-line at: <<http://dx.doi.org/10.1002/anie.201700087>>. ISSN 1521-3773

Type of production: Scientific paper**Format:** Journal

- 9** Orestes Rivada-Wheelaghan; Sandra L. Aristizábal; Joaquín López-Serrano; Robert R. Fayzullin; Julia R. Khusnutdinova. Controlled and Reversible Stepwise Growth of Linear Copper(I) Chains Enabled by Dynamic Ligand Scaffolds. Angewandte Chemie International Edition. 56 - 51, pp. 16267 - 16271. 2017. Available on-line at: <<http://dx.doi.org/10.1002/anie.201709167>>. ISSN 1521-3773

Type of production: Scientific paper**Format:** Journal

- 10** Dexin Guan; A. Jonathan Holmes; Joaquin Lopez-Serrano; Simon B. Duckett. Following palladium catalyzed methoxycarbonylation by hyperpolarized NMR spectroscopy: a parahydrogen based investigation. Catal. Sci. Technol.7, pp. 2101 - 2109. The Royal Society of Chemistry, 2017. Available on-line at: <<http://dx.doi.org/10.1039/C7CY00252A>>.

Type of production: Scientific paper**Format:** Journal

- 11** Judith P. Morales-Cerón; Patricia Lara; Joaquín López-Serrano; Laura L. Santos; Verónica Salazar; Eleuterio Álvarez; Andrés Suárez. Rhodium(I) Complexes with Ligands Based on N-Heterocyclic Carbene and Hemilabile Pyridine Donors as Highly E Stereoselective Alkyne Hydrosilylation Catalysts. Organometallics. 36 - 13, pp. 2460 - 2469. 2017. Available on-line at: <<http://dx.doi.org/10.1021/acs.organomet.7b00361>>.

Type of production: Scientific paper**Format:** Journal

- 12** Pablo Ríos; Joaquín López Serrano; María Amor Rodríguez Iglesias; Salvador Conejero Iglesias. Cationic Platinum(II) σ -SiH Complexes in Carbon Dioxide Hydrosilation . Chemistry - A European Journal. 22, pp. 16791 - 16795. Wiley-VCH Verlag, 14/11/2016. ISSN 1521-3765

DOI: 10.1002/chem.201603524**Type of production:** Scientific paper**Format:** Journal**Impact source:** ISI**Category:** Chemistry Multidisciplinary**Impact index in year of publication:** 5.771**Journal in the top 25%:** Yes**Position of publication:** 24**No. of journals in the cat.:** 163

- 13** Pablo Ríos; Amor Rodríguez; Joaquín López Serrano. Mechanistic Studies on the Selective Reduction of CO₂ to the Aldehyde Level by a Bis(phosphino)boryl (PBP)-Supported Nickel Complex. ACS CATALYSIS. 6, pp. 5715 - 5723. American Chemical Society, 21/07/2016. ISSN 2155-5435

DOI: 10.1021/acscatal.6b01715**Type of production:** Scientific paper**Format:** Journal**Corresponding author:** Yes

**Impact source:** ISI**Impact index in year of publication:** 9.307**Category:** CHEMISTRY, PHYSICAL**Journal in the top 25%:** Yes

- 14** Jesús Campos; Joaquín López-Serrano; Riccardo Peloso; Ernesto Carmona. Methyl Complexes of the Transition Metals. *Chemistry – A European Journal*. 22 - 19, pp. 6432 - 6457. 2016. Available on-line at: <<http://dx.doi.org/10.1002/chem.201504483>>. ISSN 1521-3765
Type of production: Scientific paper **Format:** Journal
- 15** Pablo Rios; Natalia Curado; Joaquin Lopez-Serrano; Amor Rodriguez. Selective reduction of carbon dioxide to bis(silyl)acetal catalyzed by a PBP-supported nickel complex. *Chem. Commun.* 52, pp. 2114 - 2117. The Royal Society of Chemistry, 2016. Available on-line at: <<http://dx.doi.org/10.1039/C5CC09650B>>.
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes
- 16** Laura Ortega-Moreno; María Fernández-Espada; Juan J. Moreno; Carlos Navarro-Gilabert; Jesús Campos; Salvador Conejero; Joaquín López-Serrano; Celia Maya; Riccardo Peloso; Ernesto Carmona. Synthesis, properties, and some rhodium, iridium, and platinum complexes of a series of bulky m-terphenylphosphine ligands. *Polyhedron*. 116, pp. 170 - 181. 2016. Available on-line at: <<http://www.sciencedirect.com/science/article/pii/S0277538716301061>>. ISSN 0277-5387
Type of production: Scientific paper **Format:** Journal
- 17** A. Vivancos; F. Vattier; J. López-Serrano; M. Paneque; M.L. Poveda; E. Álvarez. A Diels-Alder reaction triggered by a [4 + 3] metallacycloaddition. *Journal of the American Chemical Society*. 137 - 12, pp. 4074 - 4077. 2015. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-84926289721&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes
- 18** A. Zamorano; N. Rendón; J. López-Serrano; J.E.V. Valpuesta; E. Álvarez; E. Carmona. Dihydrogen catalysis of the reversible formation and cleavage of C - H and N - H bonds of aminopyridinate ligands bound to (η^5 -C₅Me₅)IrIII. *Chemistry - A European Journal*. 21 - 6, pp. 2576 - 2587. 2015. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-84921643966&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 19** N. Curado; M. Carrasco; E. Álvarez; C. Maya; R. Peloso; A. Rodríguez; J. López-Serrano; E. Carmona. Lithium Di- and Trimethyl Dimolybdenum(II) Complexes with Mo-Mo Quadruple Bonds and Bridging Methyl Groups. *Journal of the American Chemical Society*. 137 - 38, pp. 12378 - 12387. 2015. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-84942880288&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes
- 20** M.F. Espada; J. Campos; J. López-Serrano; M.L. Poveda; E. Carmona. Methyl-, Ethenyl-, and Ethynyl-Bridged Cationic Digold Complexes Stabilized by Coordination to a Bulky Terphenylphosphine Ligand. *Angewandte Chemie - International Edition*. 2015. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-84949023877&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 21** J. Campos; L. Ortega-Moreno; S. Conejero; R. Peloso; J. López-Serrano; C. Maya; E. Carmona. Reactivity of cationic agostic and carbene structures derived from platinum(II) metallacycles. *Chemistry - A European Journal*. 21 - 24, pp. 8883 - 8896. 2015. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-84930206562&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal

- 22** M. Hernández-Juárez; J. López-Serrano; P. Lara; J.P. Morales-Cerón; M. Vaquero; E. Álvarez; V. Salazar; A. Suárez. Ruthenium(II) complexes containing lutidine-derived pincer CNC ligands: Synthesis, structure, and catalytic hydrogenation of C=N bonds. *Chemistry - A European Journal*. 21 - 20, pp. 7540 - 7555. 2015. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-84928674422&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes
- 23** M.F. Espada; J. López-Serrano; M.L. Poveda; E. Carmona. Water-Promoted Generation of a Diaziride Homobarrelene by C \equiv C Coupling between an Iridacyclic Alkylidene and Acetonitrile. *Angewandte Chemie - International Edition*. 54 - 30, pp. 8751 - 8755. 2015. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-84947865195&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 24** N. Curado; C. Maya; J. López-Serrano; A. Rodríguez. Boryl-assisted hydrogenolysis of a nickel-methyl bond. *Chemical Communications*. 50 - 99, pp. 15718 - 15721. 2014. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-84911498943&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes
- 25** O. Rivada-Wheelaghan; M. Roselló-Merino; J. Díez; C. Maya; J. López-Serrano; S. Conejero. Formation of C-X bonds through stable low-electron-count cationic platinum(IV) alkyl complexes stabilized by N-heterocyclic carbenes. *Organometallics*. 33 - 21, pp. 5944 - 5947. 2014. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-84909989556&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes
- 26** M. Carrasco; I. Mendoza; M. Faust; J. López-Serrano; R. Peloso; A. Rodríguez; E. Álvarez; C. Maya; P.P. Power; E. Carmona. Terphenyl complexes of molybdenum and tungsten with quadruple metal-metal bonds and bridging carboxylate ligands. *Journal of the American Chemical Society*. 136 - 25, pp. 9173 - 9180. 2014. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-84903286962&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 27** C.M. Posadas; N. Rendón; J. López-Serrano; Y.A. Hernández; E. Álvarez; M. Paneque; M.L. Poveda. Aldehyde-assisted hydrogen transfer during the formation of hydride-iridafurans from alkynes and aldehydes. *Chemistry - A European Journal*. 19 - 5, pp. 1796 - 1809. 2013. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-84872713556&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes
- 28** J. Campos; M.F. Espada; J. López-Serrano; E. Carmona. Cyclometalated iridium complexes of bis(aryl) phosphine ligands: Catalytic C-H/C-D exchanges and C-C coupling reactions. *Inorganic Chemistry*. 52 - 11, pp. 6694 - 6704. 2013. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-84878634944&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 29** M. Roselló-Merino; J. López-Serrano; S. Conejero. Dehydrocoupling reactions of dimethylamine-borane by Pt(II) complexes: A new mechanism involving deprotonation of boronium cations. *Journal of the American Chemical Society*. 135 - 30, pp. 10910 - 10913. 2013. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-84881078999&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes

- 30** C. Cristóbal; J. López-Serrano; A.M. Lozano-Vila; M. Paneque; M.L. Poveda; F. Vattier; A. Vivancos; E. Álvarez. Experimental evidences in favour of the hydroxylamine→nitrene-water tautomerization on the coordination sphere of Ir(III) centres. *Chemistry - A European Journal*. 19 - 31, pp. 10128 - 10131. 2013. Available on-line at: <http://www.scopus.com/inward/record.url?eid=2-s2.0-84881383053&partnerID=MN8TOARS>.
Type of production: Scientific paper **Format:** Journal
- 31** C. Cristóbal; Y.A. Hernández; J. López-Serrano; M. Paneque; A. Petronilho; M.L. Poveda; V. Salazar; F. Vattier; E. Álvarez; C. Maya; E. Carmona. Reactivity studies of iridium pyridylidenes [TpMe2Ir(C6H5)2(C(CH)3C(R)N H)] (R=H, Me, Ph). *Chemistry - A European Journal*. 19 - 12, pp. 4003 - 4020. 2013. Available on-line at: <http://www.scopus.com/inward/record.url?eid=2-s2.0-84874996199&partnerID=MN8TOARS>.
Type of production: Scientific paper **Format:** Journal
- 32** J. Campos; J. López-Serrano; E. Álvarez; E. Carmona. Cationic Ir(III) alkylidenes are key intermediates in C-H bond activation and C-C bond-forming reactions. *Journal of the American Chemical Society*. 134 - 16, pp. 7165 - 7175. 2012. Available on-line at: <http://www.scopus.com/inward/record.url?eid=2-s2.0-84860340951&partnerID=MN8TOARS>.
Type of production: Scientific paper **Format:** Journal
- 33** A.E. Roa; V. Salazar; J. López-Serrano; E. Oñate; J.G. Alvarado-Rodríguez; M. Paneque; M.L. Poveda. Coupling of aromatic aldehydes with CO 2Me-substituted Tp Me2Ir(III) metallacyclopentadienes. *Organometallics*. 31 - 8, pp. 3185 - 3198. 2012. Available on-line at: <http://www.scopus.com/inward/record.url?eid=2-s2.0-84860325037&partnerID=MN8TOARS>.
Type of production: Scientific paper **Format:** Journal
- 34** A.E. Roa; V. Salazar; J. López-Serrano; E. Oñate; M. Paneque; M.L. Poveda. Decarbonylation of aliphatic aldehydes by a tpme2ir(iii) metallacyclopentadiene. *Organometallics*. 31 - 2, pp. 716 - 721. 2012. Available on-line at: <http://www.scopus.com/inward/record.url?eid=2-s2.0-84856860952&partnerID=MN8TOARS>.
Type of production: Scientific paper **Format:** Journal
- 35** J.E.V. Valpuesta; N. Rendón; J. López-Serrano; M.L. Poveda; L. Sánchez; E. Álvarez; E. Carmona. Dihydrogen-catalyzed reversible carbon-hydrogen and nitrogen-hydrogen bond formation in organometallic iridium complexes. *Angewandte Chemie - International Edition*. 51 - 30, pp. 7555 - 7557. 2012. Available on-line at: <http://www.scopus.com/inward/record.url?eid=2-s2.0-84864240472&partnerID=MN8TOARS>.
Type of production: Scientific paper **Format:** Journal
- 36** M. Carrasco; M. Faust; R. Peloso; A. Rodríguez; J. López-Serrano; E. Álvarez; C. Maya; P.P. Power; E. Carmona. Quadruply bonded dimolybdenum complexes with highly unusual geometries and vacant coordination sites. *Chemical Communications*. 48 - 33, pp. 3954 - 3956. 2012. Available on-line at: <http://www.scopus.com/inward/record.url?eid=2-s2.0-84859129425&partnerID=MN8TOARS>.
Type of production: Scientific paper **Format:** Journal
- 37** J.E.V. Valpuesta; E. Álvarez; J. López-Serrano; C. Maya; E. Carmona. Reversible double C-H bond activation of linear and cyclic ethers to form iridium carbenes. *Chemistry - A European Journal*. 18 - 41, pp. 13149 - 13159. 2012. Available on-line at: <http://www.scopus.com/inward/record.url?eid=2-s2.0-84867052000&partnerID=MN8TOARS>.
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes
- 38** S. Conejero; J. López-Serrano; M. Paneque; A. Petronilho; M.L. Poveda; F. Vattier; E. Alvarez; E. Carmona. Tautomerisation of 2-substituted pyridines to N-heterocyclic carbene ligands induced by the 16 e⁻ unsaturated [Tp Me2Ir III(C6H5)2] moiety. *Chemistry - A European Journal*. 18 - 15, pp. 4644 - 4664. 2012. Available on-line at: <http://www.scopus.com/inward/record.url?eid=2-s2.0-84859227401&partnerID=MN8TOARS>.
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes

- 39** Y.A. Hernández; J. López-Serrano; M. Paneque; M.L. Poveda; F. Vattier; V. Salazar; E. Álvarez; E. Carmona. C-N bond formation by O₂-mediated dehydrogenative coupling of phenyl and NH-pyridylidene ligands on TpMe₂ Ir(III) complexes. *Chemistry - A European Journal*. 17 - 34, pp. 9302 - 9305. 2011. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-80051508779&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 40** J. Campos; A.C. Esqueda; J. López-Serrano; L. Sánchez; F.P. Cossio; A. De Cozar; E. Álvarez; C. Maya; E. Carmona. A cationic Rh(III) complex that efficiently catalyzes hydrogen isotope exchange in hydrosilanes. *Journal of the American Chemical Society*. 132 - 47, pp. 16765 - 16767. 2010. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-78649504978&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 41** M. Boutain; S.B. Duckett; J.P. Dunne; C. Godard; J.M. Hernández; A.J. Holmes; I.G. Khazal; J. López-Serrano. A parahydrogen based NMR study of Pt catalysed alkyne hydrogenation. *Dalton Transactions*. 39 - 14, pp. 3495 - 3500. 2010. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-77951278802&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 42** C. Cristóbal; S. García-Rubín; Y.A. Hernández; J. López-Serrano; M. Paneque; C.M. Posadas; M.L. Poveda; N. Rendón; E. Alvarez. Iridafurans by coupling of alkynes and aldehydes on a TpMe₂Ir system. Facile demethoxycarbonylation of a β -CO₂Me substituent. *Organometallics*. 29 - 22, pp. 5744 - 5747. 2010. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-78649274762&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 43** E. Álvarez; Y.A. Hernández; J. López-Serrano; C. Maya; M. Paneque; A. Petronilho; M.L. Poveda; V. Salazar; F. Vattier; E. Carmona. Metallacyclic pyridylidene structures from reactions of terminal pyridylidenes with alkenes and acetylene. *Angewandte Chemie - International Edition*. 49 - 20, pp. 3496 - 3499. 2010. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-77952403892&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 44** P. Lara; J. López-Serrano; C. Maya; M. Paneque; M.L. Poveda; L.J. Sánchez; J.E.V. Valpuesta; E. Carmona. Ethylene coordination and acetylene dimerization at Tp⁺Ir(III) centers. *Organometallics*. 28 - 16, pp. 4649 - 4651. 2009. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-68949183519&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 45** K.D. Atkinson; M.J. Cowley; S.B. Duckett; P.I.P. Elliott; G.G.R. Green; J. López-Serrano; I.G. Khazal; A.C. Whitwood. Para-hydrogen induced polarization without incorporation of para-hydrogen into the analyte. *Inorganic Chemistry*. 48 - 2, pp. 663 - 670. 2009. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-60849113433&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 46** R.W. Adams; J.A. Aguilar; K.D. Atkinson; M.J. Cowley; P.I.P. Elliott; S.B. Duckett; G.G.R. Green; I.G. Khazal; J. Lopez-Serrano; D.C. Williamson. Reversible interactions with para-hydrogen enhance NMR sensitivity by polarization transfer. *Science*. 323 - 5922, pp. 1708 - 1711. 2009. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-63449109252&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 47** K.D. Atkinson; M.J. Cowley; P.I.P. Elliott; S.B. Duckett; G.G.R. Green; J. López-Serrano; A.C. Whitwood. Spontaneous transfer of Parahydrogen derived spin order to pyridine at low magnetic field. *Journal of the American Chemical Society*. 131 - 37, pp. 13362 - 13368. 2009. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-70349404611&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal

- 48 J. López-Serrano; A. Lledós; S.B. Duckett. A DFT study on the mechanism of palladium-catalyzed alkyne hydrogenation: Neutral versus cationic pathways. *Organometallics*. 27 - 1, pp. 43 - 52. 2008. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-38749112530&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 49 C. Godard; J. López-Serrano; M.-D. Gálvez-López; M. Roselló-Merino; S.B. Duckett; I. Khazal; A. Lledós; A.C. Whitwood. Detection of platinum dihydride bisphosphine complexes and studies of their reactivity through para-hydrogen-enhanced NMR methods. *Magnetic Resonance in Chemistry*. 46 - SUPPL. 1, 2008. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-55249117956&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 50 J. López-Serrano; S.B. Duckett; J.P. Dunne; C. Godard; A.C. Whitwood. Palladium catalysed alkyne hydrogenation and oligomerisation: A parahydrogen based NMR investigation. *Dalton Transactions*. 32, pp. 4270 - 4281. 2008. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-49149123158&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 51 C.J. Sexton; J. López-Serrano; A. Lledós; S.B. Duckett. Utilisation of an η^3 -allyl hydride complex, formed by UV irradiation, as a controlled source of 16-electron (η^5 -C₅Me₅)Rh(CH₂=CHMe). *Chemical Communications*. 39, pp. 4834 - 4836. 2008. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-54749092828&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 52 J. López-Serrano; S.B. Duckett; S. Aiken; K.Q. Almeida Leñero; E. Drent; J.P. Dunne; D. Konya; A.C. Whitwood. A para-hydrogen investigation of palladium-catalyzed alkyne hydrogenation. *Journal of the American Chemical Society*. 129 - 20, pp. 6513 - 6527. 2007. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-34249026124&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 53 P.G. Jones; J. López-Serrano. An organometallic compound with Z' = 4: {2-[2-(benzylideneamino)phenyl]-1,2-bis(methoxycarbonyl)ethenyl- κ^2 C₁,N} iodo(triphenylphosphine- κ P)palladium(II). *Acta Crystallographica Section C: Crystal Structure Communications*. 63 - 1, 2007. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-33846096315&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 54 J.A. Aguilar; P.I.P. Elliott; J. López-Serrano; R.W. Adams; S.B. Duckett. Only para-hydrogen spectroscopy (OPSY), a technique for the selective observation of para-hydrogen enhanced NMR signals. *Chemical Communications*. 11, pp. 1183 - 1185. 2007. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-33847785024&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 55 J. López-Serrano; S.B. Duckett; A. Lledós. Palladium-catalyzed hydrogenation: Detection of palladium hydrides. A joint study using para-hydrogen-enhanced NMR spectroscopy and density functional theory. *Journal of the American Chemical Society*. 128 - 30, pp. 9596 - 9597. 2006. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-33746600283&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 56 J. Vicente; J.-A. Abad; J. López-Serrano; P.G. Jones; C. Nájera; L. Botella-Segura. Synthesis and reactivity of ortho-palladated arylureas. Synthesis and catalytic activity of a C,N,C pincer complex. Stoichiometric syntheses of some N-heterocycles. *Organometallics*. 24 - 21, pp. 5044 - 5057. 2005. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-27144535736&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal



- 57** J. Vicente; J.-A. Abad; J. López-Serrano; P.G. Jones. Synthesis and reactivity of ortho-palladated arylcarbodiimides and aryl isothiocyanates. Formation of C-palladated quinazolines. Synthesis of 2-aminoquinolines. *Organometallics*. 23 - 20, pp. 4711 - 4722. 2004. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-4944230437&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 58** J. Vicente; J.-A. Abad; R. Clemente; J. López-Serrano; M.C.R. De Arellano; P.G. Jones; D. Bautista. Mercurated and palladated iminophosphoranes. Synthesis and reactivity. *Organometallics*. 22 - 21, pp. 4248 - 4259. 2003. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-0142227787&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 59** E. Martínez-Viviente; H. Rüegger; P.S. Pregosin; J. López-Serrano. 31P and 35Cl PGSE diffusion studies on phosphine ligands and selected organometallic complexes. Solvent dependence of ion pairing. *Organometallics*. 21 - 26, pp. 5841 - 5846. 2002. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-0012990033&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal
- 60** J. Vicente; J.-A. Abad; A.D. Frankland; J. López-Serrano; M.C. Ramírez de Arellano; P.G. Jones. Synthesis and reactivity toward isonitriles of (2-aminoaryl)palladium(II) complexes. *Organometallics*. 21 - 2, pp. 272 - 282. 2002. Available on-line at: <<http://www.scopus.com/inward/record.url?eid=2-s2.0-0012720375&partnerID=MN8TOARS>>.
Type of production: Scientific paper **Format:** Journal

Works submitted to national or international conferences

- 1** **Title of the work:** Dehydrocoupling reactions catalysed by NHC-stabilized Pt(II) complexes
Name of the conference: Organometallic Chemistry directed towards Organic Synthesis (OMCOS18)
Type of event: Conference **Geographical area:** Non EU International
Type of participation: 'Participatory - poster **Reasons for participation:** Review before acceptance
Corresponding author: Yes
City of event: Sitges, Catalonia, Spain
Date of event: 28/06/2015
End date: 02/07/2015
Organising entity: IUPAC (Unión Internacional de Química Pura y Aplicada)
1; Joaquín López Serrano; Pablo Ríos.
- 2** **Title of the work:** Metal-Ligand cooperation in hydrogenation reactions by Ru CNC pincers
Name of the conference: VII International School on Organometallic Chemistry Marcial Moreno Mañas
Type of event: Conference **Geographical area:** Non EU International
Type of participation: 'Participatory - poster
Corresponding author: Yes
City of event: Barcelona,
Date of event: 25/06/2014
End date: 27/06/2014
Organising entity: Universitat Autònoma de Barcelona **Type of entity:** University
Joaquín López Serrano; Andrés Suarez.
- 3** **Title of the work:** Amine-boranes dehydrogenation by electrophilic Pt(II) complexes. A DFT insight
Name of the conference: VI International School on Organometallic Chemistry "Marcial Moreno Mañas"
Type of event: Conference **Geographical area:** Non EU International



Type of participation: 'Participatory - poster

Corresponding author: Yes

City of event: Alicante,

Date of event: 03/06/2013

End date: 05/06/2013

Organising entity: Universidad de Alicante

Type of entity: University

Marta Roselló Merino; Joaquín López Serrano; Salvador Conejero Iglesias. "Libro de Abstracts".

- 4 Title of the work:** APLICACIÓN DE MATRICES DE VALORACIÓN (RÚBRICAS) PARA LA EVALUACIÓN DE COMPETENCIAS EN LA ASIGNATURA OPERACIONES BÁSICAS DE LABORATORIO

Name of the conference: VI CONGRESO DE INNOVACION DOCENTE EN QUIMICA (INDOQUIM 2011) () (.2011.ALICANTE, ESPAÑA)

Type of event: Conference

Geographical area: National

City of event: ALICANTE, ESPAÑA,

Date of event: 2011

MARIA ISABEL DOMINGUEZ LEAL; ANA PALACIOS MORILLO; SVETLANA IVANOVA; JOAQUÍN LÓPEZ SERRANO; JOSE MARCOS JURADO JURADO; FERNANDO ORTEGA CABALLERO; ELENA DÍEZ MARTÍN; GERMAN LOPEZ PEREZ; JOSE HIDALGO TOLEDO; RAFAEL ANDREU FONDACABE. "APLICACIÓN DE MATRICES DE VALORACIÓN (RÚBRICAS) PARA LA EVALUACIÓN DE COMPETENCIAS EN LA ASIGNATURA OPERACIONES BÁSICAS DE LABORATORIO". En: VI CONGRESO DE INNOVACION DOCENTE EN QUIMICA (INDOQUIM 2011). pp. 207 - 208.

- 5 Title of the work:** Dimolybdenum Compounds Containing Quadruple Metal-Metal Bonds Stabilized by Bulky Terphenyl and Aminopyridinate Ligands

Name of the conference: Gordon Research Conference on Organometallic Chemistry

Type of event: Conference

City of event: SALVE REGINA UNIVERSITY, NEWPORT, RI, USA,

Date of event: 2011

JOAQUÍN LÓPEZ SERRANO; Carrasco, Mario; RICCARDO PELOSO; MARIA AMOR RODRIGUEZ IGLESIAS.

- 6 Title of the work:** Ligand-assisted organometallic reactions

Name of the conference: IV School on Organometallic Chemistry ¿Marcial Moreno Mañas¿

Type of event: Conference

Type of participation: Participatory - oral communication

Corresponding author: Yes

Date of event: 2011

JOAQUÍN LÓPEZ SERRANO.

- 7 Title of the work:** IrTp PYRIDYLIDENES AS HYDROGEN SHUTTLE. A MECHANISTIC INSIGHT

Name of the conference: 28 REUNIÓN DEL GRUPO ESPECIALIZADO DE QUÍMICA ORGANOMETÁLICA

Type of event: Conference

Geographical area: National

Type of participation: 'Participatory - poster

Corresponding author: Yes

City of event: HUELVA,

Date of event: 2010

JOAQUÍN LÓPEZ SERRANO; Poveda-,Manuel L.

- 8 Title of the work:** The (eta-5 -C5Me5)Rh fragment and PXyl2Me. Electronic structure and reactivity with H2 of a novel cationic complex

Name of the conference: III School on Organometallic Chemistry "Marcial Moreno Mañas"

Corresponding author: Yes

City of event: Oviedo,

Date of event: 2010

Joaquín López Serrano; Álvarez Eleuterio Álvarez; Jesús Campos Manzano; Ernesto Carmona Guzmán; Fernando Cossio; Abel de Cozar; Ana Cristica Esqueda.

- 9** **Title of the work:** ESTUDIO TEÓRICO DE LA FORMACIÓN DE CARBENOS N-HETEROCÍCLICOS A PARTIR DE PIRIDINAS 2-SUSTITUIDAS ASISTIDA POR IR(III)
Name of the conference: XXXII REUNIÓN BIENAL DE LA REAL SOCIEDAD ESPAÑOLA DE QUÍMICA (32) (32.2009.OVIEDO)
Type of event: Conference **Geographical area:** National
City of event: OVIEDO,
Date of event: 2009
Lledós-, Agustí; JOAQUÍN LÓPEZ SERRANO; Moncho-, Salvador; Petronilho-, Ana; Carmona-, Ernesto. "ESTUDIO TEÓRICO DE LA FORMACIÓN DE CARBENOS N-HETEROCÍCLICOS A PARTIR DE PIRIDINAS 2-SUSTITUIDAS ASISTIDA POR IR(III)". En: XXXII REUNIÓN BIENAL DE LA REAL SOCIEDAD ESPAÑOLA DE QUÍMICA. pp. 176 - 176.
- 10** **Title of the work:** Ir(III)-assisted tautomerization of 2-substituted pyridines to their 2-Carbene isomer. A DFT-based mechanistic insight
Name of the conference: 2nd SCHOOL on ORGANOMETALLIC CHEMISTRY MARCIAL MORENO MAÑAS
Corresponding author: Yes
City of event: Valencia,
Date of event: 2009
Joaquín López Serrano; Agustí Lledós; Salvador Moncho; Ana Petronilho.
- 11** **Title of the work:** C-H ACTIVATION REACTIONS BY RHODIUM HALF-SANDWICH COMPLEXES AS SEEN BY PHOTOLYSIS-NMR AND DFT
Name of the conference: ESCUELA DE QUÍMICA ORGANOMETÁLICA MARCIAL MORENO MAÑAS (1) (1.2008.CIUDAD REAL)
Type of event: Conference **Geographical area:** Non EU International
Type of participation: Participatory - oral communication
City of event: CIUDAD REAL,
Date of event: 2008
JOAQUÍN LÓPEZ SERRANO; Sexton-, Catherine J.; Duckett-, Simon B.; Lledós-, Agustí.
- 12** **Title of the work:** JOINT DFT AND HYPERPOLARISED NMR STUDIES OF PALLADIUM AND PLATINUM CATALYZED HYDROGENATIONS
Name of the conference: 37TH INORGANIC REACTION MECHANISMS GROUP MEETING () (.2008.BARCELONA)
Type of event: Conference **Geographical area:** Non EU International
City of event: BARCELONA,
Date of event: 2008
JOAQUÍN LÓPEZ SERRANO; Lledós-, Agustí; Duckett-, Simon B. "JOINT DFT AND HYPERPOLARISED NMR STUDIES OF PALLADIUM AND PLATINUM CATALYZED HYDROGENATIONS". En: 37TH INORGANIC REACTION MECHANISMS GROUP MEETING. pp. P38 - P38.
- 13** **Title of the work:** INSIGHTS INTO THE PALLADIUM CATALYSED ALKYNE HYDROGENATION. A PARAHYDROGEN NMR AND DFT INVESTIGATION
Name of the conference: INORGANIC REACTION MECHANISMS SUBJECT GROUP MEETING (36) (36.2007.YORK, REINO UNIDO)
Type of event: Conference **Geographical area:** Non EU International

City of event: YORK, REINO UNIDO,

Date of event: 2007

JOAQUÍN LÓPEZ SERRANO. "INSIGHTS INTO THE PALLADIUM CATALYSED ALKYNE HYDROGENATION. A PARAHYDROGEN NMR AND DFT INVESTIGATION". En: 36TH INORGANIC REACTION MECHANISMS SUBJECT GROUP MEETING. pp. 0000 - 0000.

- 14 Title of the work:** A JOINT PARA-HYDROGEN NMR AND DFT STUDY ON THE PALLADIUM BIS PHOSPHINE CATALYSED HYDROGENATION OF ALKYNES. NEUTRAL VS CATIONIC.
Name of the conference: EXPERIMENT & THEORY IN TRANSITION METAL CHEMISTRY. A MEETING POINT () (.2006.BARCELONA, ESPAÑA)

Type of event: Conference

Geographical area: Non EU International

Type of participation: Participatory - oral communication

Reasons for participation: Review before acceptance

City of event: BARCELONA, ESPAÑA,

Date of event: 2006

JOAQUÍN LÓPEZ SERRANO. "A JOINT PARA-HYDROGEN NMR AND DFT STUDY ON THE PALLADIUM BIS PHOSPHINE CATALYSED HYDROGENATION OF ALKYNES. NEUTRAL VS CATIONIC.". En: ETTMC'06. pp. 000 - 000.

- 15 Title of the work:** PALLADIUM CATALYSED ALKYNE HYDROGENATION. A PARAHYDROGEN NMR AND DFT STUDY

Name of the conference: INTERNATIONAL CONFERENCE ON COORDINATION CHEMISTRY (37) (37.2006.CIUDAD DEL CABO, SUDÁFRICA)

Type of event: Conference

Geographical area: Non EU International

Type of participation: Participatory - oral communication

Reasons for participation: Review before acceptance

City of event: CIUDAD DEL CABO, SUDÁFRICA,

Date of event: 2006

JOAQUÍN LÓPEZ SERRANO; Duckett-,Simon B.; Almeida-Leñero,Karina Q.; Dunne-,John P.; Lledós-,Agustí. "PALLADIUM CATALYSED ALKYNE HYDROGENATION. A PARAHYDROGEN NMR AND DFT STUDY". En: 37TH INTERNATIONAL CONFERENCE ON COORDINATION CHEMISTRY. pp. 159 - 159.

- 16 Title of the work:** PHIP AS A TOOL TO INVESTIGATE THE PALLADIUM CATALYSED HYDROGENATION OF ALKYNES

Name of the conference: EUROMAR 2006 () (.2006.YORK, REINO UNIDO)

Type of event: Conference

Geographical area: Non EU International

City of event: YORK, REINO UNIDO,

Date of event: 2006

JOAQUÍN LÓPEZ SERRANO; Duckett-,Simon B."PHIP AS A TOOL TO INVESTIGATE THE PALLADIUM CATALYSED HYDROGENATION OF ALKYNES". En: EUROMAR 2006. pp. CA5 - CA5.

- 17 Title of the work:** PARAHYDROGEN-ENHANCED NMR SPECTROSCOPY IN THE STUDY OF PALLADIUM-CATALYSED ALKYNE HYDROGENATION

Name of the conference: INTERNATIONAL SCHOOL OF ORGANOMETALLIC CHEMISTRY (5) (5.2005.UNIVERSITA DEGLI STUDI DI CAMERINO, CAMERINO, ITALIA)

Type of event: Conference

Geographical area: Non EU International

City of event: UNIVERSITA DEGLI STUDI DI CAMERINO, CAMERINO, ITALIA,

Date of event: 2005

JOAQUÍN LÓPEZ SERRANO; Duckett-,Simon B.

- 18 Title of the work:** ARIL UREAS ORTO PALADIADAS II. REACTIVIDAD FRENTE A ALQUINOS.

Name of the conference: REUNIÓN DEL GRUPO ESPECIALIZADO DE QUÍMICA ORGANOMETÁLICA (21) (21.2004.CIUDAD REAL)



Type of event: Conference

Geographical area: National

City of event: CIUDAD REAL,

Date of event: 2004

JOAQUÍN LÓPEZ SERRANO; Vicente-, J; Abad-,José-Antonio; Jones-,Peter G."ARIL UREAS ORTO PALADIADAS II. REACTIVIDAD FRENTE A ALQUINOS.". En: XXII REUNIÓN DEL GRUPO ESPECIALIZADO DE QUÍMICA ORGANOMETÁLICA. pp. PB42 - PB42.

- 19 Title of the work:** ORTHO-PALLADATED ARYL UREAS. REACTIVITY TOWARDS CO AND ISOCYANIDES.

Name of the conference: FGIPS MEETING IN INORGANIC CHEMISTRY (7.2003.LISBOA (PORTUGAL))

Type of event: Conference

Geographical area: Non EU International

City of event: LISBOA (PORTUGAL),

Date of event: 2003

JOAQUÍN LÓPEZ SERRANO; Vicente-, J; Abad-,José-Antonio; Jones-,Peter G."ORTHO-PALLADATED ARYL UREAS. REACTIVITY TOWARDS CO AND ISOCYANIDES.". En: 7TH FIGIPS MEETING IN INORGANIC CHEMISTRY. pp. P276 - P276.

- 20 Title of the work:** SYNTHESIS AND REACTIVITY TOWARD ISONITRILES AND ALKYNES OF (2-CARBODIIMIDEARYL)PALLADIUM(II)COMPLEXES. INTRAMOLECULAR CYCLIZATION REATIONS

Name of the conference: XXTH CONFERENCE ON ORGANOMETALLIC CHEMISTRY () (.2002.CORFÚ, GRECIA)

Type of event: Conference

Geographical area: Non EU International

City of event: CORFÚ, GRECIA,

Date of event: 2002

JOAQUÍN LÓPEZ SERRANO; Vicente-, J; Abad-,José-Antonio; Jones-,Peter G."SYNTHESIS AND REACTIVITY TOWARD ISONITRILES AND ALKYNES OF (2-CARBODIIMIDEARYL)PALLADIUM(II)COMPLEXES. INTRAMOLECULAR CYCLIZATION REATIONS". En: XXTH CONFERENCE ON ORGANOMETALLIC CHEMISTRY. pp. P167 - P167.

- 21 Title of the work:** SINTESIS Y REACTIVIDAD DE ARILOS DE PALADIO FUNCIONALIZADOS EN ORTO.

Name of the conference: XIX REUNIÓN DEL GRUPO ESPECIALIZADO DE QUÍMICA ORGANOMETÁLICA (GEQO) () (.2000.VALLADOLID)

Type of event: Conference

Geographical area: National

City of event: VALLADOLID,

Date of event: 2000

JOAQUÍN LÓPEZ SERRANO; Hernández-Mata-,Fracisco; Vicente-, J; Abad-,José-Antonio; Jones-,Peter G."SINTESIS Y REACTIVIDAD DE ARILOS DE PALADIO FUNCIONALIZADOS EN ORTO.". En: XIX REUNION DEL GRUPO ESPECIALIZADO DE QUIMICA ORGANOMETALICA DE LA RSEQ (GEQO). pp. PB35 - PB35.

R&D management and participation in scientific committees

Organization of R&D activities

Title of the activity: VIII School on Organometallic Chemistry Marcial Moreno Mañas

Type of activity: Escuela de Química (Congreso) **Geographical area:** Non EU International

Convening entity: Universidad de Sevilla-CSIC

City convening entity: Sevilla,

Type of participation: Organiser

Start-End date: 15/06/2015 - 17/06/2015

Other achievements

Stays in public or private R&D centres

- 1** **Entity:** Universidad de York **Type of entity:** University Department
Faculty, institute or centre: Centre for Hyperpolarisation in Magnetic Resonance (CHYM, Department of Chemistry)
City of entity: York, United Kingdom
Start-End date: 01/07/2016 - 30/09/2016 **Duration:** 3 months
Goals of the stay: Movilidad Profesores Senior (Salvador de Madariaga)
- 2** **Entity:** DEPARTAMENTO DE QUÍMICA. UNIVERSITY OF YORK
City of entity: YORK; REINO UNIDO,
Start date: 01/11/2004 **Duration:** 1460 days
Goals of the stay: Post-doctoral
Provable tasks: Estancia en DEPARTAMENTO DE QUÍMICA. UNIVERSITY OF YORK - Posdoctoral
Acquired skills developed: ESTUDIO DE MECANISMOS DE REACCIONES INORGÁNICAS, ORGANOMETÁLICAS Y CATALÍTICAS MEDIANTE RESONANCIA MAGNÉTICA NUCLEAR. ESTUDIO DE REACCIONES FOTOQUÍMICAS. ESTUDIO DE REACCIONES DE HIDROGENACIÓN MEDIANTE EL USO DE PARAHIÓRÓGENO Y RESONANCIA MAGNÉTICA NUCL
- 3** **Entity:** QUEEN'S UNIVERSITY IONIC LIQUIDS LABORATORY (QUILL)
City of entity: BELFAST; REINO UNIDO,
Start date: 01/08/2003 **Duration:** 29 days
Goals of the stay: Doctorate
Provable tasks: Estancia en QUEEN'S UNIVERSITY IONIC LIQUIDS LABORATORY (QUILL) - Becario/a (pre o posdoctoral, otros)
Acquired skills developed: PREPARACIÓN Y PURIFICACIÓN DE LÍQUIDOS IÓNICOS. APLICACIONES EN QUÍMICA ORGANOMETÁLICA. CLAVE
- 4** **Entity:** DYSON PERRINS LABORATORY, UNIVERSITY OF OXFORD
City of entity: OXFORD; REINO UNIDO,
Start date: 15/06/2001 **Duration:** 92 days
Goals of the stay: Doctorate
Provable tasks: Estancia en DYSON PERRINS LABORATORY, UNIVERSITY OF OXFORD - Becario/a (pre o posdoctoral, otros)



Acquired skills developed: SÍNTESIS DE LIGANDOS TRIARIL FOSFITO Y ESTUDIO DE SU APLICACIÓN EN REACCIONES DE ACOPLAMIENTO CRUZADO CATALIZADAS POR PALADIO