



CURRÍCULUM VÍTAE NORMALIZADO



## Macarena Poyatos de Lorenzo

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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.

Macarena Poyatos graduated in Chemistry in 2001 in the Jaume I University (Castellón, Spain). She received her Ph.D. Degree in Chemistry (2005) from the same university, under the supervision of Prof. Eduardo Peris. She co-authored nine articles directly related with the work she developed during her Ph.D. Thesis. In 2005, she joined Louis Pasteur University of Strasbourg, where she worked under the supervision of Prof. Lutz Gade and Dr. Stephane Bellemin-Laponnaz during ten months. During this time, she worked in the synthesis of chiral compounds containing oxazole ligands. In 2006, she moved to Yale University and joined Prof. Robert Crabtree's group, where she stayed for two years with a post-doctoral fellowship of the Ministerio de Educación y Ciencia. During this time, she worked in the search of liquid organic substrates for hydrogen release reactions as well as in the preparation of bis-chelating N-heterocyclic carbene-based complexes. As a result of her work as a post-doctoral fellow, she co-authored seven articles. In 2008, she was awarded a **Juan de la Cierva** contract and she moved back to Jaume I University. One year later, she was awarded a **Ramon y Cajal** contract. Since October 2019, she is "Profesora Titular". She worked first in the preparation of simple and improved catalysts for reactions implying borrowing-hydrogen methodologies. She then focused her attention to the design of multitopic NHC-based ligands for the preparation of improved catalysts and advanced materials. More recently, she has focused her interest to the preparation of luminescent materials. Ever since her incorporation to Jaume I University in 2008, she has co-supervised four doctoral thesis and she is currently co-supervising two Ph.D. students. She has participated in fourteen research projects, being the PI (or second PI) of six of them. Macarena Poyatos has co-authored **66 research papers** in international chemistry journals -including four review articles- and one book chapter. Her papers have achieved a total number of **4927 citations** (4692 without self-citations) with 74.65 citations per article and her '**h**' **index is 37**.

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## Leadership Merits

Brief presentation of the merits related to leadership activities of special relevance.



## 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.

All data extracted from the webofscience, December 2024

- **Three periods** of 6 years on research work (sexenios): 2003/2008, 2009/2014 (both obtained in June 2016) and 2015/2020 (obtained in May 2021)
- Number of co-supervised PhD. Thesis in the last ten years: 5
- Number of citations: 5650 (5393 without self-citations)
- Number of citations/article: **78.47**
- Number of publications: **72**
- h-index: **39**

### Invited lectures at international chemistry meetings and seminars

#### 1. Type of contribution: Oral communication

Title of the work: Fc-based N-heterocyclic carbenes for the design of redox-switchable catalysts

Name of the conference: 11th Spanish-Italian Symposium on Organic Chemistry

City and dates of the event: San Sebastián, Basque Country (Spain), 13-17 July 2017

Organising entity: Real Sociedad Espanola de Química, Societa Chimica Italiana

#### 2. Type of contribution: Oral communication

Title of the work: IX International School on Organometallic Chemistry Marcial Moreno Mañas

Name of the conference: IX International School on Organometallic Chemistry Marcial Moreno Mañas

City and dates of the event: San Sebastián, Basque Country (Spain), 6-8 July 2017

Organising entity: ORFEO-CINQA Research Network

#### 3. Type of contribution: Seminar

Title of the work: Au(I) complexes supported by polyaromatic NHCs. Catalytic, supramolecular and photophysical studies

City and dates of the event: Strasbourg (France), 26 September 2017

Organizing entity: Institut de Physique et Chimie des Matériaux de Strasbourg, Département des Matériaux Organiques

#### 4. Type of contribution: Oral communication

Title of the work: Pyrene-based Au(I) complexes: from molecular catalysts to highly fluorescent materials

Name of the conference: 28th International Conference on Organometallic Chemistry ICOMC

City and dates of the event: Florencia, Toscana (Italia), 15-20 July 2018

Organising entity: Institute of Chemistry of Organometallic Compounds (ICCOM) of the Italian National Research Council (CNR)

#### 5. Type of contribution: Seminar



Title of the work: Polyaromatic NHC-based complexes: from molecular catalysts to highly fluorescent materials

City and dates of the event: Münster (Germany), December 20178

Organising entity: Institut für Anorganische und Analytische Chemie, Universität Münster

**6. Type of contribution: Oral communication**

Title of the work: Redox-switchable catalysis with naphthalenediimide-derived NHC complexes

Name of the conference: 29th International Conference on Organometallic Chemistry ICOMC

City and dates of the event: Prague (Czech Republic), July 2022

**7. Type of contribution: Oral communication**

Title of the work: Redox-switchable catalysis with naphthalenediimide-derived NHC complexes

Name of the conference: XL Reunión del Grupo Especializado de Química Organometálica

City and dates of the event: Barcelona (Spain), September 2022

**8. Type of contribution: Oral communication**

Title of the work: Redox-switchable catalysis with naphthalenediimide-derived NHC complexes

Name of the conference: 8th EuChemS conference on Nitrogen Ligands

City and dates of the event: Cassis (France), July 2024



## Macarena Poyatos de Lorenzo

Surname(s): **Poyatos de Lorenzo**  
Name: **Macarena**  
ORCID: **0000-0003-2000-5231**  
ResearcherID: **K-2005-2017**  
Gender: **Female**  
Email: **poyatosd@uji.es**  
Personal web page: **<http://www.inam.uji.es/users/macarena-poyatos>**

### Current professional situation

- 1 Employing entity:** Universitat Jaume I      **Type of entity:** University  
**Department:** Institute of Advanced Materials (INAM) / Escuela Superior de Tecnología y Ciencias Experimentales (ESTCE)  
**Professional category:** Profesora Titular  
**Start date:** 11/11/2019  
**Type of contract:** Civil servant      **Dedication regime:** Full time  
**Primary (UNESCO code):** 230307 - Co-ordination compounds; 230321 - Organo-metallic compounds  
**Identify key words:** Organometallic chemistry; Homogenous; Chemical coordination
- 2 Employing entity:** Universitat Jaume I      **Type of entity:** University  
**Department:** Inorganic and Organic Chemistry, Institute of Advanced Materials (INAM) / Escuela Superior de Tecnología y Ciencias Experimentales (ESTCE)  
**Professional category:** Profesora Contratada Doctora  
**Start date:** 09/2015  
**Type of contract:** Permanent employment      **Dedication regime:** Full time  
**Primary (UNESCO code):** 230307 - Co-ordination compounds; 230321 - Organo-metallic compounds  
**Identify key words:** Organometallic chemistry; Homogenous; Chemical coordination

### Previous positions and activities

	<b>Employing entity</b>	<b>Professional category</b>	<b>Start date</b>
<b>1</b>	Universitat Jaume I	Professor/a Contractat/da Doctor/a	23/03/2015
<b>2</b>	MINISTERIO DE EDUCACION Y CIENCIA	Postdoctoral fellow	01/02/2006
<b>3</b>	Universite Louis Pasteur, Strasbourg	Postdoctoral fellow	01/04/2005
<b>4</b>	Universitat Jaume I	Personal investigador (Programa Ramón y Cajal)	01/12/2009
<b>5</b>	Universitat Jaume I	Personal investigador (Programa Juan de la Cierva)	01/02/2008
<b>6</b>	Universitat Jaume I	Personal investigador contractat	10/03/2004



- 1** **Employing entity:** Universitat Jaume I **Type of entity:** University  
**Department:** Dep. de Química Inorgànica i Orgànica  
**City employing entity:** Castellón, Valencian Community, Spain  
**Professional category:** Professor/a  
Contractat/da Doctor/a  
**Start-End date:** 23/03/2015 - 13/10/2019  
**Dedication regime:** Full time **Leadership and management (Y/N):** No  
**Duration:** 4 years - 1 month
- 2** **Employing entity:** MINISTERIO DE EDUCACION Y CIENCIA  
**Professional category:** Postdoctoral fellow  
**Start-End date:** 01/02/2006 - 31/01/2008 **Duration:** 2 years
- 3** **Employing entity:** Universite Louis Pasteur, Strasbourg  
**Professional category:** Postdoctoral fellow  
**Start-End date:** 01/04/2005 - 30/11/2005 **Duration:** 7 months
- 4** **Employing entity:** Universitat Jaume I **Type of entity:** University  
**Department:** Dep. de Química Inorgànica i Orgànica  
**City employing entity:** Castellón, Valencian Community, Spain  
**Professional category:** Personal investigador **Leadership and management (Y/N):** No  
(Programa Ramón y Cajal)  
**Start date:** 01/12/2009 **Duration:** 64 months  
**Dedication regime:** Full time
- 5** **Employing entity:** Universitat Jaume I **Type of entity:** University  
**Department:** Dep. de Química Inorgànica i Orgànica  
**City employing entity:** Castellón, Valencian Community, Spain  
**Professional category:** Personal investigador **Leadership and management (Y/N):** No  
(Programa Juan de la Cierva)  
**Start date:** 01/02/2008 **Duration:** 22 months  
**Dedication regime:** Full time
- 6** **Employing entity:** Universitat Jaume I **Type of entity:** University  
**Department:** Dep. de Química Inorgànica i Orgànica  
**City employing entity:** Castellón, Valencian Community, Spain  
**Professional category:** Personal investigador **Leadership and management (Y/N):** No  
contractat  
**Start date:** 10/03/2004 **Duration:** 13 months  
**Dedication regime:** Full time



## 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:** Universitat Jaume I

**Type of entity:** University

**Date of qualification:** 2001

### Doctorates

**Doctorate programme:** Química Molecular i Materials

**Degree awarding entity:** Universitat Jaume I      **Type of entity:** University

**City degree awarding entity:** Castellón, Valencian Community, Spain

**Date of degree:** 21/02/2005

**DEA awarding entity:** Universitat Jaume I

**Date DEA was awarded:** 22/12/2003

**European doctorate:** Yes

**Date of certificate:** 21/02/2005

**Thesis title:** Synthesis of homogeneous catalysts with bidentate and pincer N-heterocyclic carbene ligands.  
Study of reactivity and catalytic properties.

**Thesis director:** Eduardo Víctor Peris Fajarnés

**Obtained qualification:** Excel·lent Cum Laude

**Recognition of quality:** No

**Special doctorate award:** Yes

**Date of award:** 31/12/2004

### Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
Catalan	B2	B2	B2	B2	B2
English	B2	B2	B2	B2	B2

## Teaching experience



## General teaching experience

**1 Name of the course:** Operaciones Básicas de Laboratorio

**University degree:** Grau en Química

**Start date:** 11/11/2019

**End date:** 11/09/2022

**Entity:** Universitat Jaume I

**Type of entity:** University

**Faculty, institute or centre:** Escola Superior Tecnología i Ciències Experimentals

**2 Name of the course:** Química

**University degree:** Grado en Ingeniería Mecánica/Eléctrica/Química y de Tecnologías Industriales

**Start date:** 12/10/2016

**End date:** 27/09/2020

**Entity:** Universidad Jaime I

**Type of entity:** University

**Faculty, institute or centre:** Escuela Superior de Tecnología y Ciencias Experimentales

**3 Name of the course:** Química I

**University degree:** Grau en Química

**Start date:** 28/09/2020

**Type of entity:** University

**Faculty, institute or centre:** Escola Superior de Tecnología i Ciències Experimentals

**4 Type of teaching:** Official teaching

**Name of the course:** Catàlisi Homogènia i Medi Ambient

**University degree:** Máster Universitario en Química Aplicada y Farmacológica

**Frequency of the activity:** 6

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 4,2

**Entity:** Universidad Jaime I

**Type of entity:** University

**Department:** Dep. de Química Inorgànica i Orgànica

**City of entity:** Castellón, Valencian Community, Spain

**Subject language:** Spanish

**5 Type of teaching:** Official teaching

**Name of the course:** Catálisis homogénea y medio ambiente

**University degree:** Máster Universitario en Catálisis Homogénea

**Frequency of the activity:** 2

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 1,5

**Entity:** Universidad Jaime I

**Type of entity:** University

**Department:** Dep. de Química Inorgànica i Orgànica

**City of entity:** Castellón, Valencian Community, Spain

**Subject language:** Spanish

**6 Type of teaching:** Official teaching

**Name of the course:** Ampliación de Química Inorgánica

**University degree:** Licenciatura en Química (Pla de 2002)

**Frequency of the activity:** 1

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 3

**Entity:** Universidad Jaime I

**Type of entity:** University

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**Department:** Dep. de Química Inorgánica y Orgánica  
**City of entity:** Castellón, Valencian Community, Spain  
**Subject language:** Spanish

**7 Type of teaching:** Official teaching

**Name of the course:** Fonaments Químics de l'Enginyeria

**University degree:** Enginyeria Industrial

**Frequency of the activity:** 1

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 1,5

**Entity:** Universidad Jaime I

**Type of entity:** University

**Department:** Dep. de Química Inorgánica y Orgánica

**City of entity:** Castellón, Valencian Community, Spain

**Subject language:** Spanish

**8 Type of teaching:** Official teaching

**Name of the course:** Laboratori Avançat en Química I

**University degree:** Llicenciatura en Química (Pla de 2002)

**Frequency of the activity:** 1

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 6

**Entity:** Universidad Jaime I

**Type of entity:** University

**Department:** Dep. de Química Inorgánica y Orgánica

**City of entity:** Castellón, Valencian Community, Spain

**Subject language:** Spanish

**9 Type of teaching:** Official teaching

**Name of the course:** Operacions Bàsiques de Laboratori (Química)

**University degree:** Grau en Química

**Frequency of the activity:** 1

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 3,38

**Entity:** Universidad Jaime I

**Type of entity:** University

**Department:** Dep. de Química Inorgánica y Orgánica

**City of entity:** Castellón, Valencian Community, Spain

**10 Type of teaching:** Official teaching

**Name of the course:** Química

**University degree:** Grau en Enginyeria Química

**Frequency of the activity:** 1

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 0,53

**Entity:** Universidad Jaime I

**Type of entity:** University

**Department:** Dep. de Química Inorgánica y Orgánica

**City of entity:** Castellón, Valencian Community, Spain

**11 Type of teaching:** Official teaching

**Name of the course:** Química

**University degree:** Grau en Enginyeria Elèctrica

**Frequency of the activity:** 1

**Type of hours/ ECTS credits:** Credits



**Hours/ECTS credits:** 0,99

**Entity:** Universidad Jaime I

**Department:** Dep. de Química Inorgánica y Orgánica

**City of entity:** Castellón, Valencian Community, Spain

**Type of entity:** University

**12 Type of teaching:** Official teaching

**Name of the course:** Química

**University degree:** Grau en Enginyeria en Tecnologies Industrials

**Frequency of the activity:** 1

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 1,32

**Entity:** Universidad Jaime I

**Type of entity:** University

**Department:** Dep. de Química Inorgánica y Orgánica

**City of entity:** Castellón, Valencian Community, Spain

**13 Type of teaching:** Official teaching

**Name of the course:** Química

**University degree:** Grau en Enginyeria Mecànica

**Frequency of the activity:** 1

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 2,16

**Entity:** Universidad Jaime I

**Type of entity:** University

**Department:** Dep. de Química Inorgánica y Orgánica

**City of entity:** Castellón, Valencian Community, Spain

**14 Type of teaching:** Official teaching

**Name of the course:** Química

**University degree:** Grau en Enginyeria Química

**Frequency of the activity:** 2

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 1,51

**Entity:** Universidad Jaime I

**Type of entity:** University

**Department:** Dep. de Química Inorgánica y Orgánica

**City of entity:** Castellón, Valencian Community, Spain

**Subject language:** Spanish

**15 Type of teaching:** Official teaching

**Name of the course:** Química

**University degree:** Grau en Enginyeria en Tecnologies Industrials

**Frequency of the activity:** 2

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 1,79

**Entity:** Universidad Jaime I

**Type of entity:** University

**Department:** Dep. de Química Inorgánica y Orgánica

**City of entity:** Castellón, Valencian Community, Spain

**Subject language:** Spanish

**16 Type of teaching:** Official teaching

**Name of the course:** Química

**University degree:** Grau en Enginyeria Elèctrica

**Frequency of the activity:** 2



**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 1,94

**Entity:** Universidad Jaime I

**Department:** Dep. de Química Inorgánica y Orgánica

**City of entity:** Castellón, Valencian Community, Spain

**Subject language:** Spanish

**Type of entity:** University

**17 Type of teaching:** Official teaching

**Name of the course:** Química

**University degree:** Grau en Enginyeria Mecànica

**Frequency of the activity:** 2

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 3,76

**Entity:** Universidad Jaime I

**Type of entity:** University

**Department:** Dep. de Química Inorgánica y Orgánica

**City of entity:** Castellón, Valencian Community, Spain

**Subject language:** Spanish

**18 Type of teaching:** Official teaching

**Name of the course:** Química II

**University degree:** Llicenciatura en Química (Pla de 2002)

**Frequency of the activity:** 3

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 12

**Entity:** Universidad Jaime I

**Type of entity:** University

**Department:** Dep. de Química Inorgánica y Orgánica

**City of entity:** Castellón, Valencian Community, Spain

**Subject language:** Spanish

**19 Type of teaching:** Official teaching

**Name of the course:** Química Inorgànica I

**University degree:** Grau en Química

**Frequency of the activity:** 1

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 3,92

**Entity:** Universidad Jaime I

**Type of entity:** University

**Department:** Dep. de Química Inorgánica y Orgánica

**City of entity:** Castellón, Valencian Community, Spain

**20 Type of teaching:** Official teaching

**Name of the course:** Química Inorgànica II

**University degree:** Grau en Química

**Frequency of the activity:** 1

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 2

**Entity:** Universidad Jaime I

**Type of entity:** University

**Department:** Dep. de Química Inorgánica y Orgánica

**City of entity:** Castellón, Valencian Community, Spain



**21 Type of teaching:** Official teaching

**Name of the course:** Química Inorgànica III

**University degree:** Grau en Química

**Frequency of the activity:** 2

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 5

**Entity:** Universidad Jaime I

**Type of entity:** University

**Department:** Dep. de Química Inorgánica y Orgánica

**City of entity:** Castellón, Valencian Community, Spain

**Subject language:** Spanish

**22 Type of teaching:** Official teaching

**Name of the course:** Química Organometà-llica

**University degree:** Llicenciatura en Química (Pla de 2002)

**Frequency of the activity:** 2

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 9

**Entity:** Universidad Jaime I

**Type of entity:** University

**Department:** Dep. de Química Inorgánica y Orgánica

**City of entity:** Castellón, Valencian Community, Spain

**Subject language:** Spanish

**23 Type of teaching:** Official teaching

**Name of the course:** Treball de Final de Grau

**University degree:** Grau en Química

**Frequency of the activity:** 1

**Type of hours/ ECTS credits:** Credits

**Hours/ECTS credits:** 0,48

**Entity:** Universidad Jaime I

**Type of entity:** University

**Department:** Dep. de Química Inorgánica y Orgánica

**City of entity:** Castellón, Valencian Community, Spain

## Experience supervising doctoral thesis and/or final year projects

**1 Project title:** Synthetic route to a pincer-tweezer precursor

**Type of project:** TFM

**Entity:** ICIQ/URV

**Type of entity:** University Research Institute

**Student:** Esteban Aicardo Valencia Grajales

**Date of reading:** 26/07/2021

**2 Project title:** Synthesis os bis-NHC precursors and study of their coordinatation capabilities

**Entity:** Universitat Jaume I

**Type of entity:** University

**Student:** Lucía Ballester Salvador

**Date of reading:** 25/06/2021

**3 Project title:** Tetrametallic (Gold, Iridium and Rhodium) complexes based on NHCs. From lumininscent properties to supramolecular assemblies

**Type of project:** Doctoral thesis

**Entity:** Universitat Jaume I

**Type of entity:** University

**Student:** Ana María Gutiérrez Blanco



Date of reading: 03/05/2021

**4 Project title:** A review in Janus-type bis-NHC ligands

**Type of project:** TFG

**Entity:** Universitat Jaume I

**Student:** Alex Sierra Marrero

**Date of reading:** 24/09/2020

**Type of entity:** University Research Institute

**5 Project title:** Synthetic route to a pincer-tweezer precursor

**Entity:** Universitat Jaume I

**Type of entity:** University Research Institute

**Student:** Esteban Aicardo Valencia Grajales

**Date of reading:** 26/06/2020

**6 Project title:** Synthesis of flexible tetrakisimidazolium macrocycles

**Entity:** Universitat Jaume I

**Type of entity:** University

**Student:** Miriam Castell Forcadell

**Date of reading:** 21/06/2019

**7 Project title:** Synthesis and characterization of pyrene-based tetranuclear Ir(I) complexes

**Type of project:** End of course project

**Entity:** Universitat Jaume I

**Type of entity:** University

**Student:** Bárbara Adsuara

**Date of reading:** 22/06/2018

**8 Project title:** Synthesis and coordination of a tris-N-heterocyclic carbene ligand

**Entity:** Universitat Jaume I

**Type of entity:** University

**Student:** David Martínez Arriazu

**Date of reading:** 23/06/2017

**9 Project title:** NHC-based gold(I) complexes supported by 1,3,6,8-tetraethynylpyrene: synthesis, photophysical properties and molecular aggregation

**Type of project:** TFM

**Entity:** ICIQ/URV

**Type of entity:** University Research Institute

**City of entity:** Tarragona,

**Student:** Ana María Gutiérrez Blanco

**Date of reading:** 22/06/2017

**10 Project title:** An attempt to prepare a polycyclic pyrene-fused Janus-type bis-N-heterocyclic carbene ligand

**Type of project:** End of course project

**Entity:** Universitat Jaume I

**Type of entity:** University

**Student:** Ana María Gutiérrez Blanco

**Date of reading:** 24/06/2016

**11 Project title:** Synthesis of bis-imidazolium salt for the preparation of a bis-NHC Ir(III)-based complex

**Type of project:** End of course project

**Entity:** Universitat Jaume I

**Type of entity:** University

**Student:** Bárbara Torres Rochera

**Date of reading:** 24/06/2016



**12 Project title:** Metal compounds with rigid polycyclic aromatic ligands. Catalytic consequences

**Type of project:** Doctoral thesis

**Co-director of thesis:** Eduardo Víctor Peris Fajarnés

**Entity:** Universitat Jaume I

**Type of entity:** University

**City of entity:** Castellón, Valencian Community, Spain

**Student:** Hugo Christian Valdés Rivas

**Obtained qualification:** Excellent Cum Laude

**Date of reading:** 25/09/2015

**European doctorate:** No

**13 Project title:** Design of polytopic ligands for the preparation of multifunctional catalysts

**Type of project:** Doctoral thesis

**Co-director of thesis:** Eduardo Víctor Peris Fajarnés

**Entity:** Universitat Jaume I

**Type of entity:** University

**City of entity:** Castellón, Valencian Community, Spain

**Student:** Sergio Gonell Gómez

**Obtained qualification:** Excellent Cum Laude

**Date of reading:** 06/03/2015

**European doctorate:** No

**14 Project title:** NHC-Based multifunctional catalysts of Ru, Ir and Rh in C-H bond activation processes

**Type of project:** Doctoral thesis

**Co-director of thesis:** Eduardo Víctor Peris Fajarnés

**Entity:** Universitat Jaume I

**Type of entity:** University

**City of entity:** Castellón, Valencian Community, Spain

**Student:** Amparo Prades Ferrer

**Obtained qualification:** Apte Cum Laude

**Date of reading:** 28/06/2012

**European doctorate:** No

## Materials and other teaching or educational publications.

**1** José Antonio Mata Martínez; Macarena Poyatos de Lorenzo; Eduardo Víctor Peris Fajarnés. Laboratory Manual. Inorganic Chemistry III Q0924 (352), Publicacions de la Universitat Jaume I. 2011. ISBN -

**Legal deposit:** CS-272-2011

**Format:** Book

**Degree of contribution:** Author or co-author of entire book

**Position of signature:** 2

**2** Macarena Poyatos de Lorenzo; Beatriz Julián López. Empleo del visualizador gráfico Jmol en las clases de simetría molecular, REVISTA DE FORMACION E INNOVACION EDUCATIVA UNIVERSITARIA. 4(7), pp. 227 - 232. 2014. ISSN 1989-0257

**Format:** Article(s)

**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

**Position of signature:** 1



## Scientific and technological experience

### Research and development groups/teams

**Name of the group:** Química Organometálica y Catálisis Homogénea

**Aims of the group:** Obtención de compuestos organometálicos con propiedades ópticas no lineales. Síntesis catalítica de metalodendrímeros derivados de ferroceno. Diseño de catalizadores termoestables con ligandos pinza

**Name of principal investigator:** Eduardo Víctor Peris    **Number of members in the group:** 8 Fajarnés

**Standardised code:** 138

**City of group:** Castellón de la Plana, Valencian Community, Spain

**Affiliation entity:** Universitat Jaume I

**Start date:** 29/07/2009

**Duration:** 83 months

### Scientific or technological activities

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

**1 Name of the project:** A combined theoretical and experimental approach to the rational design of high value chemicals with implications for biotherapeutic engineering

**Entity where project took place:** UNIVERSITAT JAUME I    **Type of entity:** University

**City of entity:** Castellón, Valencian Community, Spain

**Name principal investigator (PI, Co-PI....):** Macarena Poyatos; Vicente Moliner

**Start-End date:** 01/01/2022 - 31/12/2025

**Total amount:** 574.619,64 €

**2 Name of the project:** LIGANDOS INTELIGENTES PARA LA REDUCCIÓN DE CO2

**Entity where project took place:** Universitat Jaume I    **Type of entity:** University

**Nº of researchers:** 3

**Funding entity or bodies:**

Agencia Estatal de Investigación

**Start-End date:** 01/12/2022 - 30/09/2025

**Total amount:** 183.655 €

**3 Name of the project:** Smart N-Heterocyclic Carbenes for Supramolecular Assemblies and Switchable Catalysts

**Entity where project took place:** Universitat Jaume I    **Type of entity:** University

**City of entity:** Castellón, Valencian Community, Spain

**Name principal investigator (PI, Co-PI....):** Macarena Poyatos; Eduardo Peris

**Nº of researchers:** 3

**Funding entity or bodies:**

Agencia Estatal de Investigación



**Start-End date:** 01/09/2022 - 31/08/2025

**Total amount:** 193.600 €

**4 Name of the project:** SUPRAMOLECULAR ORGANOMETALLIC STRUCTURES FOR CATALYSIS AND MOLECULAR RECOGNITION (SUPRACAT)

**Entity where project took place:** Universitat Jaume I **Type of entity:** University

**City of entity:** Castelló, Valencian Community, Spain

**Name principal investigator (PI, Co-PI....):** Eduardo Peris Poyatos; Macarena Poyatos Lorenzo

**Nº of researchers:** 2

**Funding entity or bodies:**

MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES

**Start-End date:** 01/01/2019 - 31/12/2021

**Total amount:** 145.200 €

**5 Name of the project:** Complejos poliaromáticos de Au(I) alquinilo: síntesis y propiedades fotofísicas

**Entity where project took place:** Universitat Jaume I **Type of entity:** University

I

**City of entity:** Castelló, Valencian Community, Spain

**Name principal investigator (PI, Co-PI....):** Macarena Poyatos Lorenzo; Beatriz Julián López; Eduardo Peris Fajarnés

**Nº of researchers:** 3

**Funding entity or bodies:**

Generalitat Valenciana

**Type of entity:** Conselleria d'Educació, Cultura i Esport

**City funding entity:** Valencia, Valencian Community, Spain

**Start-End date:** 01/01/2019 - 31/12/2020

**Total amount:** 40.000 €

**6 Name of the project:** Diseño de ligandos NHC poliaromáticos capaces de coordinar en forma bis-pinza. Propiedades catalíticas y fotofísicas

**Entity where project took place:** Universitat Jaume I **Type of entity:** University

I

**City of entity:** Castellon, Valencian Community, Spain

**Name principal investigator (PI, Co-PI....):** 1; Macarena Poyatos Lorenzo

**Nº of researchers:** 2

**Start-End date:** 01/01/2018 - 31/12/2020

**Total amount:** 25.813 €

**7 Name of the project:** DISEÑO DE SISTEMAS POLIAROMÁTICOS PARA LA PREPARACIÓN DE CATALIZADORES QUE INCORPORAN UN CENTRO REDOX

**Geographical area:** Projecte d'Investigació Local

**Degree of contribution:** Scientific coordinator

**Entity where project took place:** Universitat Jaume I

**Name principal investigator (PI, Co-PI....):** Macarena Poyatos

**Nº of researchers:** 4

**Funding entity or bodies:**

Universidad Jaime I

**Type of entity:** UNIVERSIDAD

**City funding entity:** Castelló de la Plana, Valencian Community, Spain



**Name of the programme:** CONVOCATORIA DE PROYECTOS DE INVESTIGACIÓN CIENTÍFICA Y DESARROLLO TECNOLÓGICO DEL PLAN DE PROMOCIÓN DE LA INVESTIGACIÓN DE LA UJI 2015 \*  
Modalitat B) Projectes d'investigació i desenvolupament tecnològic

**Code according to the funding entity:** P1·1B2015-24

**Start-End date:** 01/01/2016 - 31/12/2018

**Duration:** 36 months

**Total amount:** 39.872 €

**8 Name of the project:** LIGANDOS POLIAROMÁTICOS PARA EL DISEÑO DE CATALIZADORES MEJORADOS

**Geographical area:** Projecte d'Investigació Nacional

**Degree of contribution:** Scientific coordinator

**Entity where project took place:** Universitat Jaume I

**Name principal investigator (PI, Co-PI....):** Eduardo Peris; Macarena Poyatos

**Nº of researchers:** 2

**Funding entity or bodies:**

MINISTERIO DE ECONOMIA Y COMPETITIVIDAD **Type of entity:** ADMINISTRACIÓN CENTRAL

**City funding entity:** Madrid, Spain

**Name of the programme:** CONVOCATORIA DE AYUDAS CORRESPONDIENTES AL PROGRAMA ESTATAL FOMENTO DE LA INVESTIGACIÓN CIENTÍFICA Y TÉCNICA DE EXCELENCIA, SUBPROGRAMA ESTATAL DE GENERACIÓN DE CONOCIMIENTO 2014 \* Proyectos del departamento DTMA (áreas BIA, CGL, CTM, CTQ, ENE, TRA)

**Code according to the funding entity:** CTQ2014-51999-P

**Start-End date:** 01/01/2015 - 31/12/2017

**Duration:** 36 months

**Total amount:** 138.000 €

**Dedication regime:** Full time

**9 Name of the project:** NITRENIUM-MESOIONIC CARBENE BASED DITOPIC CATALYSTS: APPLICATIONS IN CASCADE REACTIONS AND CO2 ACTIVATION FOR THE PREPARATION OF ACTIVE PHARMACEUTIC

**Geographical area:** Projecte d'Investigació Autonòmic

**Degree of contribution:** Researcher

**Entity where project took place:** Universitat Jaume I

**Name principal investigator (PI, Co-PI....):** Gregorio Guisado Barrios

**Nº of researchers:** 6

**Funding entity or bodies:**

Generalitat Valenciana CONSELLERIA D'EDUCACIÓ, CULTURA I ESPORT

**Type of entity:** ADMINISTRACIÓN AUTONÓMICA

**City funding entity:** València, Spain

**Name of the programme:** CONVOCATORIA DE DIFERENTES TIPOS DE AYUDAS DE LA CONSELLERIA DE EDUCACIÓN, CULTURA Y DEPORTE DE LA GENERALIDAD VALENCIANA \*  
Projectes d'I+D emergents

**Code according to the funding entity:** GV/2015/097

**Start-End date:** 01/01/2015 - 31/12/2016

**Duration:** 24 months

**Total amount:** 12.000 €

**10 Name of the project:** Desarrollo de OLEDs a partir de sistemas policonjugados con carbenos N-heterocíclicos (OLEDs from NHCs)

**Entity where project took place:** Universidad Jaime I **Type of entity:** University

**City of entity:** Castellón, Valencian Community, Spain

**Name principal investigator (PI, Co-PI....):** Macarena Poyatos; Sergio Gonell; Eduardo Peris; Germà García; Antonio Guerrero



**Nº of researchers:** 5

**Start-End date:** 01/01/2014 - 31/12/2015

**Total amount:** 38.000 €

- 11 Name of the project:** LIGANDOS POLITOPICOS PARA LA PREPARACION DE CATALIZADORES MEJORADOS Y MATERIALES AVANZADOS

**Geographical area:** Projecte d'Investigació Nacional

**Degree of contribution:** Researcher

**Entity where project took place:** Universitat Jaume I

**Name principal investigator (PI, Co-PI....):** Eduardo Peris

**Nº of researchers:** 12

**Funding entity or bodies:**

MINISTERIO DE CIENCIA E INNOVACION

**Type of entity:** ADMINISTRACIÓN CENTRAL

**City funding entity:** Madrid, Spain

**Name of the programme:** CONVOCATORIA DE AYUDAS PARA LA REALIZACION DE PROYECTOS DE INVESTIGACIÓN Y ACCIONES COMPLEMENTARIAS DENTRO DEL PROGRAMA NACIONAL DE PROYECTOS DE INVESTIGACION FUNDAMENTAL PARA EL AÑO 2011 \* Proyectos áreas ANEP: TM, INF, ICI, IEL, IME, MTM, QMC, COM, TQ

**Code according to the funding entity:** CTQ2011-24055

**Start-End date:** 01/01/2012 - 30/06/2015

**Duration:** 42 months

**Total amount:** 193.600 €

**Dedication regime:** Full time

- 12 Name of the project:** DISEÑO DE NUEVOS CATALIZADORES HOMOGENEOS PARA LA FUNCIONALIZACION HETEROATOMO-DIRIGIDA DE ARENOS

**Geographical area:** Projecte d'Investigació Local

**Degree of contribution:** Scientific coordinator

**Entity where project took place:** Universitat Jaume I

**Name principal investigator (PI, Co-PI....):** Macarena Poyatos

**Nº of researchers:** 3

**Funding entity or bodies:**

Universidad Jaime I

**Type of entity:** UNIVERSIDAD

**City funding entity:** Castelló de la Plana, Valencian Community, Spain

**Name of the programme:** CONVOCATORIA DE PROYECTOS DE INVESTIGACION CIENTIFICA Y DESARROLLO TECNOLOGICO 2011 \* Modalitat B: Projectes Consolidats

**Code according to the funding entity:** P1·1B2011-22

**Start-End date:** 01/01/2012 - 31/12/2014

**Duration:** 36 months

**Total amount:** 32.944,12 €

- 13 Name of the project:** DISEÑO DE CATALIZADORES MULTIOPTICOS Y PREPARACION DE MOLECULAS ORGANICAS POR CATALISIS TANDEM. ACTIVACION DE CO2 Y APLICACIONES BIOMEDICAS DE LOS COMPUESTOS OBTENIDOS. SOLICITUD: 869804461-4461-4-8

**Geographical area:** Projecte d'Investigació Nacional

**Degree of contribution:** Researcher

**Entity where project took place:** Universitat Jaume I

**Name principal investigator (PI, Co-PI....):** Eduardo Víctor Peris Fajarnés

**Nº of researchers:** 10

**Funding entity or bodies:**

MINISTERIO DE EDUCACION, CULTURA Y  
DEPORTE

**Type of entity:** ADMINISTRACIÓN CENTRAL

**City funding entity:** Madrid, Spain



**Name of the programme:** CONVOCATORIA PARA LA REALIZACION DE PROYECTOS DE INVESTIGACION, PROGRAMAS DE ACTIVIDAD INVESTIGADORA Y ACCIONES COMPLEMENTARIAS DENTRO DEL PROGRAMA NACIONAL DE PROYECTOS DE INVESTIGACION FUNDAMENTAL EN EL MARCO DEL VI PLAN NACIONAL DE INVESTIGACION CIENTIFICA, DESARROLLO E INNOVACION TECNOLOGICA 2008-2011. \* Subprograma de Proyectos de Investigación Fundamental no orientada en las áreas de: ICI, IEL, IME, INF, MAM, QMC, TM, COM, TQ.

**Code according to the funding entity:** CTQ2008-04460/BQU

**Start-End date:** 01/01/2009 - 31/12/2011

**Duration:** 36 months

**Total amount:** 141.570 €

**Dedication regime:** Full time

**14 Name of the project:** DISEÑO DE CATALIZADORES BASADOS EN LIGANDOS CARBENO N-HETEROCICLICO: DISEÑO DE MATERIALES PARA EL ALMACENAMIENTO DE HIDROGENO Y OBTENCION DE CATALIZADORES RECICLABLES

**Geographical area:** Projecte d'Investigació Local

**Degree of contribution:** Scientific coordinator

**Entity where project took place:** Universitat Jaume I

**Name principal investigator (PI, Co-PI....):** Macarena Poyatos

**Nº of researchers:** 2

**Funding entity or bodies:**

Universidad Jaime I

**Type of entity:** UNIVERSIDAD

**City funding entity:** Castelló de la Plana, Valencian Community, Spain

**Name of the programme:** PLAN DE PROMOCION DE LA INVESTIGACION EN LA UNIVERSITAT JAUME I DE CASTELLON, AÑO 2008 \* Projectes d'investigació científica i desenvolupament tecnològic (Emergents)

**Code according to the funding entity:** P1·1A2008-02

**Start-End date:** 10/12/2008 - 09/12/2011

**Duration:** 36 months

**Total amount:** 24.700 €

**15 Name of the project:** STABLE CARBENES FOR THE ACTIVATION OF CO2 (SCAC)

**Geographical area:** Acció complementaria a projecte d'investigació

**Degree of contribution:** Researcher

**Entity where project took place:** Universitat Jaume I

**Name principal investigator (PI, Co-PI....):** Eduardo Víctor Peris Fajarnés

**Nº of researchers:** 3

**Funding entity or bodies:**

MINISTERIO DE EDUCACION, CULTURA Y  
DEPORTE

**Type of entity:** ADMINISTRACIÓN CENTRAL

**City funding entity:** Madrid, Spain

**Name of the programme:** CONVOCATORIA DE AYUDAS PARA LA REALIZACION DE ACCIONES COMPLEMENTARIAS EN EL MARCO DE ALGUNOS PROGRAMAS NACIONALES (2007) \* Ayudas complementarias para proyectos de investigación aprobados y en ejecución del Programa Marco de la UE

**Code according to the funding entity:** CTQ2007-31175-E

**Start-End date:** 01/04/2008 - 31/03/2011

**Duration:** 36 months

**Total amount:** 90.000 €

**16 Name of the project:** DISEÑO, SINTESIS Y CARACTERIZACION DE CATALIZADORES BASADOS EN COMPUESTOS METALICOS CON LIGANDOS NHC FORMANDO PARTE INTEGRAL DE LA ESTRUCTURA DE MATERIALES HIBRIDOS ORGANICOS INORGANICOS MESOPOROSOS

**Geographical area:** Projecte d'Investigació Autònòmic

**Degree of contribution:** Scientific coordinator



**Entity where project took place:** Universitat Jaume I

**Name principal investigator (PI, Co-PI....):** Macarena Poyatos

**Nº of researchers:** 5

**Funding entity or bodies:**

Generalitat Valenciana CONSELLERIA D'EDUCACIO **Type of entity:** ADMINISTRACIÓN AUTONÓMICA

**City funding entity:** València, Spain

**Name of the programme:** CONVOCATORIA DIFERENTES TIPOS DE AYUDAS PARA EL FOMENTO DE LA INVESTIGACIÓN EN LA C.VALENCIANA (PREDOTORALES, ESTANCIAS BECARIOS GV, MOVILIDAD PDI, ORGANIZACION Y DIFUSIÓN CONGRESOS Y PROYECTOS PRECOMPETITIVOS. \*

Projectes precompetitius d'I+D per a equips d'investigació

**Code according to the funding entity:** GVPRE/2008/296

**Start-End date:** 01/01/2008 - 31/12/2008

**Duration:** 12 months

**Total amount:** 15.500 €

**17 Name of the project:** ESTUDIO DE PROCESOS DE FORMACION DE COMPUESTOS CON LIGANDOS DE TIPO CARBENO N-HETEROCICLICO. APLICACIONES EN PROCESOS DE ACTIVACION C-H Y EN CATALISIS ASIMETRICA

**Geographical area:** Projecte d'Investigació Nacional

**Degree of contribution:** Researcher

**Entity where project took place:** Universitat Jaume I

**Name principal investigator (PI, Co-PI....):** Eduardo Víctor Peris Fajarnés

**Nº of researchers:** 7

**Funding entity or bodies:**

MINISTERIO DE EDUCACION, CULTURA Y  
DEPORTE

**Type of entity:** ADMINISTRACIÓN CENTRAL

**City funding entity:** Madrid, Spain

**Name of the programme:** CONVOCATORIA DE AYUDAS PARA LA REALIZACION DE PROYECTOS DE INVESTIGACION EN EL MARCO DE ALGUNOS PROGRAMAS NACIONALES DEL PLAN NACIONAL DE I+D+I 2004-2007. \* Proyectos de Investigación en el marco de los Programas Nacionales de Biotecnología, Biología Fundamental, Energía, Medios de Transporte, Construcción, Ciencias y Tecnolog. Químicas, Diseño y Producción Industrial, Astronomía y Astrofísica, Matemáticas, Tecnolog. Informáticas y Ciencias Sociales, Económicas y Jurídicas.

**Code according to the funding entity:** CTQ2005-05187

**Start-End date:** 31/12/2005 - 31/12/2008

**Duration:** 36 months

**Total amount:** 66.045 €

**Dedication regime:** Full time

**18 Name of the project:** DISEÑO DE CATALIZADORES HOMOGENEOS BASADOS EN LIGANDOS BIS- Y TRIDENTADOS N-HETEROCICLICO

**Geographical area:** Projecte d'Investigació Local

**Degree of contribution:** Researcher

**Entity where project took place:** Universitat Jaume I

**Name principal investigator (PI, Co-PI....):** Eduardo Víctor Peris Fajarnés

**Nº of researchers:** 6

**Funding entity or bodies:**

Universidad Jaime I

**Type of entity:** UNIVERSIDAD

**City funding entity:** Castelló de la Plana, Spain

**Name of the programme:** PLAN DE PROMOCION DE LA INVESTIGACION EN LA UNIVERSITAT JAUME I PARA EL AÑO 2004. \* PROYECTOS DE INVESTIGACION GRUPOS CONSOLIDADOS (MODALIDAD B)

**Code according to the funding entity:** P1·1B2004-07

**Start-End date:** 01/12/2004 - 30/11/2007

**Duration:** 36 months



**Total amount:** 35.800 €

**19 Name of the project:** ACTIVACION Y FUNCIONALIZACION DE ALCANOS MEDIANTE LA UTILIZACION DE CATALIZADORES CON LIGANDOS CARBENO N-HETEROCICLICOS

**Geographical area:** Projecte d'Investigació Autonòmic

**Degree of contribution:** Researcher

**Entity where project took place:** Universitat Jaume I

**Name principal investigator (PI, Co-PI....):** José Antonio Mata Martínez

**Nº of researchers:** 4

**Funding entity or bodies:**

Generalitat Valenciana D.G. D'INVESTIGACIÓ I  
TRANSF.TECNOLÒGICA

**Type of entity:** ADMINISTRACIÓN AUTONÓMICA

**City funding entity:** València, Spain

**Name of the programme:** CONVOCATORIA DE LA CONSELLERIA D'EMPRESA, UNIVERSITAT I CIENCIA DE DIFERENT TIPUS D'AJUDES PER AL FOMENT DE LA INVESTIGACIÓ CIENTIFICA I EL DESENVOLUPAMENT TECNOLOGIC A LA C.VALENCIANA PER A L'ANY 2005. \* Projectes d'Investigació per a grups emergents o de recent creació

**Code according to the funding entity:** GV05/107

**Start-End date:** 01/01/2005 - 31/12/2006

**Duration:** 24 months

**Total amount:** 10.535 €

**20 Name of the project:** Acción Integrada España-Portugal.

**Name principal investigator (PI, Co-PI....):** Eduardo Peris Fajarnés

**Funding entity or bodies:**

Ministerio de Educación y Ciencia (ref.: HP2004-0019)

**21 Name of the project:** Activación y funcionalización de alcanos mediante la utilización de catalizadores con ligandos carbeno N-heterocíclicos.

**Name principal investigator (PI, Co-PI....):** Jose A. Mata Martínez

**Funding entity or bodies:**

Generalitat Valenciana (ref.: GV05/107)

**22 Name of the project:** Diseño de Catalizadores con Ligandos Tripodales Basados en Carbenos N-Heterocíclicos. Obtención de Sistemas Reciclables y Preparación de Catalizadores Quirales.

**Name principal investigator (PI, Co-PI....):** Eduardo Peris Fajarnés

**Funding entity or bodies:**

Generalitat Valenciana (ref.: GV04-017)

**23 Name of the project:** Diseño de catalizadores basados en ligandos carbeno N-heterocíclico: diseño de materiales para el almacenamiento de hidrógeno y obtención de catalizadores reciclables.

**Name principal investigator (PI, Co-PI....):** Macarena Poyatos Lorenzo

**Funding entity or bodies:**

Bancaixa-UJI (ref: P1.1A2008-02)

**24 Name of the project:** Diseño de catalizadores termoestables homogéneos basados en ligandos bis- y tridentados carbeno-N-heterocíclico.

**Name principal investigator (PI, Co-PI....):** Eduardo Peris Fajarnés

**Funding entity or bodies:**

Bancaixa-UJI (ref.: P1.1B2004-07)



**25 Name of the project:** Diseño de catalizadores termoestables homogéneos de Pd y Ru para reacciones de Heck, metátesis y ciclopropanación.

**Name principal investigator (PI, Co-PI....):** Eduardo Peris Fajarnés

**Funding entity or bodies:**

Bancaixa-UJI

**26 Name of the project:** Diseño de nuevos catalizadores homogéneos para la funcionalización heteroátomo dirigida de arenos.

**Name principal investigator (PI, Co-PI....):** Macarena Poyatos Lorenzo

**Funding entity or bodies:**

Bancaixa-UJI (ref: P1.1B2011-22)

**27 Name of the project:** Diseño, síntesis y caracterización de catalizadores basados en compuestos metálicos con ligandos NHC formando parte integral de la estructura de materiales híbridos orgánicos-inorgánicos mesoporosos.

**Name principal investigator (PI, Co-PI....):** Macarena Poyatos Lorenzo

**Funding entity or bodies:**

Generalitat Valenciana (ref: GVPRE/2008/296)

**28 Name of the project:** Estudio teórico de mecanismos de reacción de enzimas utilizando métodos híbridos que combinan mecánica cuántica con mecánica molecular.

**Name principal investigator (PI, Co-PI....):** Vicente Moliner Ibáñez

**Funding entity or bodies:**

Bancaixa-UJI (ref.: PB0I03201/1)

**29 Name of the project:** Síntesis y estudio de la actividad catalítica de nuevos catalizadores con ligandos quirales, pinza y C3. Heterogeneización en matrices sólidas.

**Name principal investigator (PI, Co-PI....):** Eduardo Peris Fajarnés

**Funding entity or bodies:**

Ministerio de Ciencia y Tecnología (ref.: MAT2002-04421-C02-01)

## Results

### Industrial and intellectual property

**1 Title registered industrial property:** Sales de pireno-bis-imidazolio

**Inventors/authors/obtainers:** Macarena Poyatos; Sergio Gonell; Eduardo Peris

**Entity holder of rights:** Universitat Jaume I

**Country of inscription:** Spain

**Date of register:** 10/09/2013

**2 Title registered industrial property:** Derivados de trisimidazolio

**Inventors/authors/obtainers:** Macarena Poyatos; Sergio Gonell; Eduardo Peris

**Entity holder of rights:** Universitat Jaume I

**Country of inscription:** Spain

**Date of register:** 21/12/2012

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CURRÍCULUM VÍTAE NORMALIZADO

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## Scientific and technological activities

### Scientific production

**H index:** 39

**Date of application:** 08/12/2024

**Source of H-Index:** WOS

#### Publications, scientific and technical documents

- 1** Gold(I) Complex with a Photoactive Ligand Behaves as a Two-in-One Dual Metallaphotoredox Cross-Coupling Catalyst. 2024.

**Type of production:** Scientific paper

- 2** Lone-Pair- $\pi$  Bond Strength Unveiled by a Combined Experimental and Computational Study. 2024.

**Type of production:** Scientific paper

- 3** NHC Ligands in Organometallic Chemistry and Catalysis. 2024.

**Type of production:** Scientific paper

- 4** "Anion-Switchable" Pincer-Mn(I) Catalyst for the Reductive N-Methylation of Amines with Formic Acid and CO<sub>2</sub>. 2024.

**Type of production:** Scientific paper

- 5** Dehydrative Coupling of Alcohols by Iridium(III) Complexes with N-Heterocyclic-Pyridine Chelating Ligands Decorated with Naphthalene-Diimide. 2023.

**Type of production:** Scientific paper

- 6** Supramolecular Control of the Oxidative Addition as a Way To Improve the Catalytic Efficiency of Pincer-Rhodium(I) Complexes. 2023.

**Type of production:** Scientific paper

- 7** Tuning the Catalytic Activity of a Pincer Complex of Rhodium(I) by Supramolecular and Redox Stimuli. 2023.

**Type of production:** Scientific paper

- 8** A Redox-Switchable Gold(I) Complex for the Hydroamination of Acetylenes: A Convenient Way for Studying Ligand-Derived Electronic Effects. 2022.

**Type of production:** Scientific paper

- 9** A redox-switchable catalyst with an 'unplugged' redox tag. 2022.

**Type of production:** Scientific paper

- 10** Redox-Switchable Complexes Based on Nanographene-NHCs. 2022.

**Type of production:** Scientific paper



**11** Insights into the past and future of Janus-di-N-heterocyclic carbenes. 2021.

**Type of production:** Scientific paper

**12** Redox-Switchable Cycloisomerization of Alkynoic Acids with Naphthalenediimide-Derived N-Heterocyclic Carbene Complexes. 2021.

**Type of production:** Scientific paper

**13** A Twisted Tetragold Cyclophane from a Fused Bis-Imidazolindiylidene. 2020.

**Type of production:** Scientific paper

**14** Ligand & band gap engineering: tailoring the protocol synthesis for achieving high-quality CsPbI<sub>3</sub> quantum dots. 2020.

**Type of production:** Scientific paper

**15** N-Heterocyclic Carbenes: A Door Open to Supramolecular Organometallic Chemistry. 2020.

**Type of production:** Scientific paper

**16** Structural Features of Mono- and Dimetallic Complexes of Palladium Combining Two Types of Aromatic NHC Ligands. 2019.

**Type of production:** Scientific paper

**17** The Complex Coordination Landscape of a Digold(I) U-Shaped Metalloligand. 2019.

**Type of production:** Scientific paper

**18** Pyrene-Connected Tetraimidazolylidene Complexes of Iridium and Rhodium. Structural Features and Catalytic Applications. 2018.

**Type of production:** Scientific paper

**19** Tetra-Au(I) Complexes Bearing a Pyrene Tetraalkynyl Connector Behave as Fluorescence Torches. 2018.

**Type of production:** Scientific paper

**20** A D3h-symmetry hexaazatriphenylene-tris-N-heterocyclic carbene ligand and its coordination to iridium and gold: preliminary catalytic studies. 2017.

**Type of production:** Scientific paper

**21** Cation-driven self-assembly of a gold(I)-based metallo-tweezer. 2017.

**Type of production:** Scientific paper

**22** Cation-Driven Self-Assembly of a Gold(I)-Based Metallo-Tweezer. 2017.

**Type of production:** Scientific paper

**23** Gold catalysts with polyaromatic-NHC ligands. Enhancement of activity by addition of pyrene. 2017.

**Type of production:** Scientific paper

**24** Gold(I) Metallo-Tweezers for the Recognition of Functionalized Polycyclic Aromatic Hydrocarbons by Combined π-π Stacking and H-Bonding. 2017.

**Type of production:** Scientific paper



**25** Platinum-Based Organometallic Folders for the Recognition of Electron-Deficient Aromatic Substrates. 2017.

**Type of production:** Scientific paper

**26** A Ferrocenyl-Benzo-Fused Imidazolylidene Complex of Ruthenium as Redox-Switchable Catalyst for the Transfer Hydrogenation of Ketones and Imines. 2016.

**Type of production:** Scientific paper

**27** Ferrocenyl-Imidazolylidene Ligand for Redox-Switchable Gold-Based Catalysis. A Detailed Study on the Redox-Switching Abilities of the Ligand. 2016.

**Type of production:** Scientific paper

**28** Mono and dimetallic pyrene-imidazolylidene complexes of iridium(III) for the deuteration of organic substrates and the C-C coupling of alcohols. 2016.

**Type of production:** Scientific paper

**29** Pincer-CNC mononuclear, dinuclear and heterodinuclear Au(III) and Pt(II) complexes supported by mono- and poly-N-heterocyclic carbenes: Synthesis and photophysical properties. 2016.

**Type of production:** Scientific paper

**30** A nanosized Janus bis-N-heterocyclic carbene ligand based on a quinoxalinophenanthrophenazine core, and its coordination to iridium. 2015.

**Type of production:** Scientific paper

**31** Experimental and theoretical approaches to the influence of the addition of pyrene to a series of Pd and Ni NHC-based complexes: Catalytic consequences. 2015.

**Type of production:** Scientific paper

**32** Fluorescent Pyrene-Based Bis-azole Compounds: Synthesis and Photophysical Analysis. 2015.

**Type of production:** Scientific paper

**33** Postmodification of the electronic properties by addition of ?-stacking additives in N-heterocyclic carbene complexes with extended polyaromatic systems. 2015.

**Type of production:** Scientific paper

**34** A pyrene-based N-heterocyclic carbene: Study of its coordination chemistry and stereoelectronic properties. 2014.

**Type of production:** Scientific paper

**35** Main-chain organometallic microporous polymers bearing triphenylene-tris(N- heterocyclic carbene)-gold species: Catalytic properties. 2014.

**Type of production:** Scientific paper

**36** Pyrene-based bisazolium salts: From luminescence properties to Janus-type bis-N-heterocyclic carbenes. 2014.

**Type of production:** Scientific paper

**37** A tetracyclic bis(imidazolindiyliidene) ligand and its diiridium and dipalladium complexes. 2013.

**Type of production:** Scientific paper



- 38** Rhodium-NHC complexes mediate diboration versus dehydrogenative borylation of cyclic olefins: A theoretical explanation. 2013.  
**Type of production:** Scientific paper
- 39** Triphenylene-based tris(N-heterocyclic carbene) ligand: Unexpected catalytic benefits. 2013.  
**Type of production:** Scientific paper
- 40** Unveiling the stereoelectronic properties of a triphenylene-based tris N-heterocyclic carbene. 2013.  
**Type of production:** Scientific paper
- 41** Imidazolidines as hydride sources for the formation of late transition-metal monohydrides. 2012.  
**Type of production:** Scientific paper
- 42** Y-shaped tris-N-heterocyclic-carbene ligand for the preparation of multifunctional catalysts of iridium, rhodium, and palladium. 2012.  
**Type of production:** Scientific paper
- 43** A Y-shaped tris-N-heterocyclic carbene for the synthesis of simultaneously chelate-monodentate dipalladium complexes. 2011.  
**Type of production:** Scientific paper
- 44** Double C-H bond activation of C(sp<sup>3</sup>)H<sub>2</sub> groups for the preparation of complexes with back-to-back bisimidazolinylidenes. 2011.  
**Type of production:** Scientific paper
- 45** Palladium catalysts with sulfonate-functionalized-NHC ligands for Suzuki-Miyaura cross-coupling reactions in water. 2011.  
**Type of production:** Scientific paper
- 46** Recent developments in the applications of palladium complexes bearing n-heterocyclic carbene ligands. 2011.  
**Type of production:** Scientific paper
- 47** Synthesis and properties of chelating N-heterocyclic carbene rhodium(I) complexes: Synthetic experiments in current organometallic chemistry. 2011.  
**Type of production:** Scientific paper
- 48** (?-arene)ruthenium(N-heterocyclic carbene) complexes for the chelation-assisted arylation and deuteration of arylpyridines: Catalytic studies and mechanistic insights. 2010.  
**Type of production:** Scientific paper
- 49** Biomedical properties of a series of Ruthenium-N-heterocyclic carbene complexes based on oxidant activity in vitro and assessment in vivo of biosafety in zebrafish embryos. 2010.  
**Type of production:** Scientific paper
- 50** A simple catalyst for the efficient benzylation of arenes by using alcohols, ethers, styrenes, aldehydes, or ketones. 2009.  
**Type of production:** Scientific paper



- 51** Complexes with poly(N-heterocyclic carbene) ligands: Structural features and catalytic applications. 2009.  
**Type of production:** Scientific paper

- 52** A weak donor, planar chelating bitriazole N-heterocyclic carbene ligand for ruthenium(II), palladium(II), and rhodium. 2008.  
**Type of production:** Scientific paper

- 53** Acetylacetone anchors for robust functionalization of TiO<sub>2</sub> nanoparticles with Mn(II)-terpyridine complexes. 2008.  
**Type of production:** Scientific paper

- 54** [IrCl<sub>2</sub>Cp\*(NHC)] complexes as highly versatile efficient catalysts for the cross-coupling of alcohols and amines. 2008.  
**Type of production:** Scientific paper

- 55** A planar chelating bitriazole N-heterocyclic carbene ligand and its rhodium(III) and dirhodium(II) complexes. 2007.  
**Type of production:** Scientific paper

- 56** Shaping and enforcing coordination spheres: The implications of C 3 and C1 chirality in the coordination chemistry of 1,1,1-Tris(oxazolinyl)ethane ("Trisox"). 2007.  
**Type of production:** Scientific paper

- 57** Structural and catalytic properties of chelating bis- and tris-N-heterocyclic carbenes. 2007.  
**Type of production:** Scientific paper

- 58** C-H oxidative addition of bisimidazolium salts to iridium and rhodium complexes, and N-heterocyclic carbene generation. A combined experimental and theoretical study. 2006.  
**Type of production:** Scientific paper

- 59** Can the disproportion of oxidation state III be favored in Ru II-OH<sub>2</sub>/RuIV=O systems?. 2006.  
**Type of production:** Scientific paper

- 60** Catalysed low temperature H<sub>1</sub>-OH<sub>2</sub>/RuIV=O release from nitrogen heterocycles. 2006.  
**Type of production:** Scientific paper

- 61** Coinage metal complexes with N-heterocyclic carbene ligands as selective catalysts in diboration reaction. 2006.  
**Type of production:** Scientific paper

- 62** Coordination chemistry of a modular N,C-chelating oxazole-carbene ligand and its applications in hydrosilylation catalysis. 2006.  
**Type of production:** Scientific paper

- 63** Synthesis and structural chemistry of arene-ruthenium half-sandwich complexes bearing an oxazolinyl-carbene ligand. 2006.  
**Type of production:** Scientific paper

- 64** An N-heterocyclic carbene/iridium hydride complex from the oxidative addition of a ferrocenyl-bisimidazolium salt: Implications for synthesis. 2005.  
**Type of production:** Scientific paper



**65** A new rhodium(III) complex with a tripodal bis(imidazolylidene) ligand. Synthesis and catalytic properties. 2004.

**Type of production:** Scientific paper

**66** Carbene Complexes of Rhodium and Iridium from Tripodal N-Heterocyclic Carbene Ligands: Synthesis and Catalytic Properties. 2004.

**Type of production:** Scientific paper

**67** Reactivity Differences in the Syntheses of Chelating N-Heterocyclic Carbene Complexes of Rhodium Are Ascribed to Ligand Anisotropy. 2004.

**Type of production:** Scientific paper

**68** Synthesis and Reactivity of New Chelate-N-Heterocyclic Biscarbene Complexes of Ruthenium. 2004.

**Type of production:** Scientific paper

**69** New Rh(I) and Rh(III) bisimidazol-2-ylidene complexes: Synthesis, reactivity, and molecular structures. 2003.

**Type of production:** Scientific paper

**70** New ruthenium(II) CNC-pincer bis(carbene) complexes: Synthesis and catalytic activity. 2003.

**Type of production:** Scientific paper

**71** Preparation of a new clay-immobilized highly stable palladium catalyst and its efficient recyclability in the Heck reaction. 2003.

**Type of production:** Scientific paper

**72** Synthesis of a dirhodium(I) bisimidazolium carbene complex and catalytic activity toward hydroformylation of olefins. High-pressure NMR spectroscopy of the catalyst under catalytic conditions. 2003.

**Type of production:** Scientific paper

**73** Synthesis, reactivity, crystal structures and catalytic activity of new chelating bisimidazolium-carbene complexes of Rh. 2003.

**Type of production:** Scientific paper

**74** Recent Developments in the Synthesis and Applications of Rhodium and Iridium Complexes Bearing N-Heterocyclic Carbene Ligands. 2014.

**Type of production:** Scientific book or monograph

## Works submitted to national or international conferences

**1** **Title of the work:** Redox-switchable catalysis with naphthalenediimide-derived NHC complexes

**Name of the conference:** XL Reunión del Grupo Especializado de Química Organometálica

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**Corresponding author:** Yes

**City of event:** Barcelona, Spain

**Date of event:** 07/09/2022

**End date:** 09/09/2022



**2 Title of the work:** Redox-switchable catalysis with naphthalenediimide-derived NHC complexes

**Name of the conference:** 29th International Conference on Organometallic Chemistry

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**Corresponding author:** Yes

**City of event:** Prague, Czech Republic

**Date of event:** 17/07/2022

**End date:** 22/07/2022

**City organizing entity:** Prague, Czech Republic

**3 Title of the work:** Pyrene-based Au(I) complexes: from molecular catalysts to highly fluorescent materials

**Name of the conference:** ICOMC 2018

**Type of event:** Conference

**Geographical area:** European Union

**Type of participation:** Participatory - oral communication

**Corresponding author:** Yes

**City of event:** Florence, Italy

**Date of event:** 16/07/2018

**End date:** 20/07/2018

**Organising entity:** Institute of Chemistry of  
Organometallic Compounds

**Type of entity:** University Research Institute

**City organizing entity:** Florence, Italy

**With external admission assessment committee:** Yes

**4 Title of the work:** Fc-based N-heterocyclic carbenes for the design of redox-switchable catalysts

**Name of the conference:** 11th Spanish-Italian Symposium on Organic Chemistry

**Geographical area:** European Union

**Type of participation:** Participatory - oral communication

**Corresponding author:** Yes

**City of event:** San Sebastián, Basque Country, Spain

**Date of event:** 13/07/2016

**End date:** 15/07/2016

**Organising entity:** Real Sociedad Española de Química, Societa Chimica Italiana

**City organizing entity:** San Sebastián, Basque Country, Spain

Eduardo Peris Fajarnés; Macarena Poyatos Lorenzo; Susana Ibáñez Maella.

**5 Title of the work:** Fc-based N-heterocyclic carbenes for the design of redox-switchable catalysts

**Name of the conference:** IX International School on Organometallic Chemistry Marcial Moreno Mañas

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**Corresponding author:** Yes

**City of event:** San Sebastián, Basque Country, Spain

**Date of event:** 06/07/2016

**End date:** 08/07/2016

Eduardo Peris Fajarnés; Macarena Poyatos Lorenzo; Susana Ibáñez Maella.

**6 Title of the work:** Fc-based N-heterocyclic carbenes for the design of redox-switchable catalysts

**Name of the conference:** IX International School on Organometallic Chemistry Marcial Moreno Mañas

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**Corresponding author:** Yes

**City of event:** San Sebastián, Basque Country, Spain



**Date of event:** 06/07/2016

**End date:** 08/07/2016

Eduardo Peris Fajarnés; Macarena Poyatos Lorenzo; Susana Ibáñez Maella.

- 7 Title of the work:** A triphenylene based tris-NHC ligand: from improved catalytic properties to main-chain microporous organometallic polymers

**Name of the conference:** XI Simposio de Investigadores Jóvenes RSEQ-Sigma Aldrich

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Bilbao, (724), Spain

**Date of event:** 04/11/2014

**Type of contribution:** Book chapter

Sergio Gonell Gómez; Macarena Poyatos de Lorenzo; Eduardo Víctor Peris Fajarnés. En: XI Simposio de Investigadores Jóvenes RSEQ-Sigma Aldrich. (Spain): Universidad del País Vasco, Pag 52, PSC-2, 2014. ISBN 978-84-697-1492-8

- 8 Title of the work:** Experimental and Theoretical Approaches to the Influence of the Addition of Pyrene to a Series of Pd and Ni NHC-Based Complexes: Catalytic Consequences (Póster)

**Name of the conference:** XI Simposio de Investigadores Jóvenes RSEQ-Sigma Aldrich

**Type of event:** Conference

**City of event:** Bilbao, (724), Spain

**Date of event:** 04/11/2014

**Type of contribution:** Book chapter

Hugo Christian Valdés Rivas; Macarena Poyatos de Lorenzo; Eduardo Víctor Peris Fajarnés. En: XI Simposio de Investigadores Jóvenes RSEQ-Sigma Aldrich. (Spain): Universidad del País Vasco, P-26, Pag 136, 2014. ISBN 978-84-697-1492-8

- 9 Title of the work:** Fluorescent pyrene-based azole compounds: synthesis and photophysical analysis (Póster)

**Name of the conference:** XI Simposio de Investigadores Jóvenes RSEQ-Sigma Aldrich

**Type of event:** Conference

**City of event:** Bilbao, (724), Spain

**Date of event:** 04/11/2014

**Type of contribution:** Book chapter

Ibáñez S.; Macarena Poyatos de Lorenzo; Eduardo Víctor Peris Fajarnés. En: XI Simposio de Investigadores Jóvenes RSEQ-Sigma Aldrich. (Spain): Universidad del País Vasco, P22, Pag 132, 2014. ISBN 978-84-697-1492-8

- 10 Title of the work:** A Pyrene-Based N?-Heterocyclic Carbene: Study of Its Coordination Chemistry and Stereoelectronic Properties (Póster)

**Name of the conference:** XXXII Reunión del Grupo Especializado en Química Organometálica (GEOQ 2014)

**Type of event:** Conference

**City of event:** Tarragona, (724), Spain

**Date of event:** 17/09/2014

**Type of contribution:** Book chapter

Hugo Christian Valdés Rivas; Macarena Poyatos de Lorenzo; Eduardo Víctor Peris Fajarnés. En: XXXII Reunión del Grupo Especializado en Química Organometálica (GEOQ 2014). (Spain): GEOQ 2014, P52, Pag 102, 2014. ISBN 978-84-8424-340-3



**11 Title of the work:** A Pyrene-Based N<sup>◆</sup>-Heterocyclic Carbene: Study of Its Coordination Chemistry and Stereoelectronic Properties (Pòster)

**Name of the conference:** XXXII Reunión del Grupo Especializado en Química Organometálica (GEOQ 2014)

**Type of event:** Conference

**City of event:** Tarragona, (724), Spain

**Date of event:** 17/09/2014

**Type of contribution:** Book chapter

Hugo Christian Valdés Rivas; Macarena Poyatos de Lorenzo; Eduardo Víctor Peris Fajarnés. En: XXXII Reunión del Grupo Especializado en Química Organometálica (GEOQ 2014). (Spain): GEOQ 2014, P52, Pag 102, 2014. ISBN 978-84-8424-340-3

**12 Title of the work:** Fluorescent pyrene-based azole compounds: synthesis and photophysical analysis (Pòster)

**Name of the conference:** XXXII Reunión del Grupo Especializado en Química Organometálica (GEOQ 2014)

**Type of event:** Conference

**City of event:** Tarragona, (724), Spain

**Date of event:** 17/09/2014

**Type of contribution:** Book chapter

Ibáñez S.; Macarena Poyatos de Lorenzo; Eduardo Víctor Peris Fajarnés. En: XXXII Reunión del Grupo Especializado en Química Organometálica (GEOQ 2014). (Spain): GEOQ 2014, P87, Pag 137, 2014. ISBN 978-84-8424-340-3

**13 Title of the work:** Pyrene-Based Bisazolium Salts: From Luminescence Properties to Janus-Type Bis-N-Heterocyclic Carbenes

**Name of the conference:** XXXII Reunión del Grupo Especializado en Química Organometálica (GEOQ 2014)

**Type of event:** Conference

**Type of participation:** 'Participatory - poster

**City of event:** Tarragona, Spain

**Date of event:** 17/09/2014

Sergio Gonell Gómez; Macarena Poyatos de Lorenzo; Eduardo Víctor Peris Fajarnés. En: XXXII Reunión del Grupo Especializado en Química Organometálica (GEOQ 2014). (Spain): GEOQ 2014, P139, Pag 189, 2014. ISBN 978-84-8424-340-3

**14 Title of the work:** A novel bis-imidazolinium salt as precursor of a Janus-head-type NHC ligand

**Name of the conference:** XXX Reunión Grupo Especializado en Química Organometálica

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Castellón, (724), Spain

**Date of event:** 12/06/2012

**Type of contribution:** Book chapter

S. Acedo; Amparo Prades Ferrer; Macarena Poyatos de Lorenzo; Eduardo Víctor Peris Fajarnés. En: XXX Reunión Grupo Especializado en Química Organometálica. (Spain): Publicacions de la UJI, 2012. ISBN 978-84-8021-859-7

**15 Title of the work:** Diseño y síntesis de un nuevo ligando tris-NHC con simetría D3h

**Name of the conference:** XXX Reunión Grupo Especializado en Química Organometálica

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Castellón, (724), Spain



**Date of event:** 12/06/2012

**Type of contribution:** Book chapter

R. Gómez; Sergio Gonell Gómez; Macarena Poyatos de Lorenzo; Eduardo Víctor Peris Fajarnés. En: XXX Reunión Grupo Especializado en Química Organometálica. (Spain): Publicaciones de la UJI, 2012. ISBN 978-84-8021-859-7

**16 Title of the work:** Synthesis of homo- and hetero-bimetallic compounds based on a y-shaped tris-NHC ligand

**Name of the conference:** XXX Reunión Grupo Especializado en Química Organometálica

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Castellón, (724), Spain

**Date of event:** 12/06/2012

**Type of contribution:** Book chapter

Sergio Gonell Gómez; Macarena Poyatos de Lorenzo; José Antonio Mata Martínez; Eduardo Víctor Peris Fajarnés. En: XXX Reunión Grupo Especializado en Química Organometálica. (Spain): Publicaciones de la UJI, 2012. ISBN 978-84-8021-859-7

**17 Title of the work:** Diseño y coordinación de nuevos ligandos multitópicos: en busca de catalizadores multifuncionales

**Name of the conference:** XXXIII Reunión Bienal de la Real Sociedad Española de Química

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Valencia, (724), Spain

**Date of event:** 25/07/2011

Macarena Poyatos de Lorenzo; Amparo Prades Ferrer; Sergio Gonell Gómez; José Antonio Mata Martínez; Eduardo Víctor Peris Fajarnés. En: XXXIII Reunión Bienal de la Real Sociedad Española de Química. 2011.

**18 Title of the work:** Generación de complejos con nuevos ligandos NHC mediante doble activación de los hidrógenos geminales de un C(sp<sup>3</sup>)

**Name of the conference:** XXXIII Reunión Bienal de la Real Sociedad Española de Química

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Valencia, (724), Spain

**Date of event:** 25/07/2011

Amparo Prades Ferrer; Macarena Poyatos de Lorenzo; José Antonio Mata Martínez; Eduardo Víctor Peris Fajarnés. En: XXXIII Reunión Bienal de la Real Sociedad Española de Química. 2011.

**19 Title of the work:** New multitopic ligand based on N-heterocyclic carbenes and its coordination to Pd(II)

**Name of the conference:** XXXIII Reunión Bienal de la Real Sociedad Española de Química (RSEQ 2011)

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Valencia, (724), Spain

**Date of event:** 25/07/2011

Sergio Gonell Gómez; Macarena Poyatos de Lorenzo; José Antonio Mata Martínez; Eduardo Víctor Peris Fajarnés. En: XXXIII Reunión Bienal de la Real Sociedad Española de Química (RSEQ 2011). 2011.

**20 Title of the work:** New multitopic ligand based on N-heterocyclic carbenes and its coordination to Pd(II)

**Name of the conference:** EUCOMC CONGRESS 2011

**Type of event:** Conference

**Type of participation:** 'Participatory - poster'



**City of event:** Toulouse, Francia,

**Date of event:** 03/07/2011

Sergio Gonell Gómez; Macarena Poyatos de Lorenzo; José Antonio Mata Martínez; Eduardo Víctor Peris Fajarnés. En: EUOMC CONGRESS 2011. 2011.

**21 Title of the work:** Palladium catalysts with sulfonate-functionalized-NHC ligands for Suzuki-Miyaura cross-coupling reactions in water

**Name of the conference:** 2nd China-Spain bilateral symposium on catalysis

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Tarragona, (724), Spain

**Date of event:** 22/11/2010

Fernando Godoy; Sergio Gonell; María de la Candelaria Segarra Almela; Macarena Poyatos de Lorenzo; Eduardo Víctor Peris Fajarnés. En: 2nd China-Spain bilateral symposium on catalysis. 2010.

**22 Title of the work:** Arilación y deuteration de arilpiridinas catalizadas por compuestos de tipo Complejos (6-areno)Ru(NHC)

**Name of the conference:** XXVIII Reunión del Grupo Especializado de Química Organometálica

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Punta Umbría (Huelva),

**Date of event:** 07/09/2010

**Type of contribution:** Book chapter

Amparo Prades Ferrer; Macarena Poyatos de Lorenzo; Eduardo Víctor Peris Fajarnés. En: XXVIII Reunión del Grupo Especializado de Química Organometálica. Univ. Huelva, 2010. ISBN 978-84-92944-16-3

**23 Title of the work:** Diseño de compuestos hidrosolubles de Pd(II)

**Name of the conference:** XXVIII Reunión del Grupo Especializado de Química Organometálica

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Punta Umbría (Huelva),

**Date of event:** 07/09/2010

**Type of contribution:** Book chapter

Maria de la Candelaria Segarra Almela; S. Gonell; Macarena Poyatos de Lorenzo; F. Godoy; Eduardo Víctor Peris Fajarnés. En: XXVIII Reunión del Grupo Especializado de Química Organometálica. Univ. Huelva, 2010. ISBN 978-84-92944-16-3

**24 Title of the work:** Cp<sup>\*</sup>Ir(III)(NHC) complexes for the N-alkylation of amines and benzylation of arenes

**Name of the conference:** 3rd Workshop on Industry-Academia partnerships in catalysis

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Berlin Alemania,

**Date of event:** 26/09/2009

Amparo Prades Ferrer; Rosa Corberán Roc; Macarena Poyatos de Lorenzo; Eduardo Víctor Peris Fajarnés. En: 3rd Workshop on Industry-Academia partnerships in catalysis. 2009.

**25 Title of the work:** Bencilación de arenos empleando alcoholes, éteres, estiremos, aldehídos o cetonas

**Name of the conference:** XXXII Reunión Bienal de la Sociedad Española de Química

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Oviedo,



**Date of event:** 13/09/2009

Amparo Prades Ferrer; Rosa Corberán Roc; Macarena Poyatos de Lorenzo; Eduardo Víctor Peris Fajarnés. En: XXXII Reunión Bienal de la Sociedad Española de Química. 2009.

**26 Title of the work:** Propiedades biomédicas de complejos de Ru(II)-NHC: Estudio de la Actividad oxidante In Vitro de la Bioseguridad In Vivo empleando embriones de pez cebra

**Name of the conference:** XXXII Reunión Bienal de la Sociedad Española de Química

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Oviedo,

**Date of event:** 13/09/2009

Macarena Poyatos de Lorenzo; Eduardo Víctor Peris Fajarnés; Amparo Prades Ferrer. En: XXXII Reunión Bienal de la Sociedad Española de Química. 2009.

**27 Title of the work:** C-H oxidative addition of bisimidazolium salts to Ir and Rh complexes, and N-Heterocyclic carbene generation

**Name of the conference:** 8th. FIGIPAS- Meeting in Inorganic Chemistry

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Atenas- Grecia,

**Date of event:** 06/07/2005

Mónica Viciana Miralles; Macarena Poyatos de Lorenzo; M. Sanaú; Eduardo Víctor Peris Fajarnés. En: 8th. FIGIPAS- Meeting in Inorganic Chemistry. 2005.

**28 Title of the work:** Síntesis y coordinación de nuevos ligandos tripodales de tipo biscarbeno N-Heterocíclico

**Name of the conference:** XXI Reunión Anual de Química Organometálica

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Ciudad Real,

**Date of event:** 12/07/2004

Elena Mas Marzá; Macarena Poyatos de Lorenzo; Mónica Viciana Miralles; Mercedes Sanaú; Eduardo Víctor Peris Fajarnés. En: XXI Reunión Anual de Química Organometálica. 2004.

**29 Title of the work:** Síntesis y coordinación de nuevos ligandos tripodales de tipo biscarbeno N-Heterocíclico

**Name of the conference:** XXII REUNIÓN DEL GRUPO ESPECIALIZADO DE QUÍMICA ORGANOMETÁLICA (GECO)

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Ciudad Real,

**Date of event:** 12/07/2004

Elena Mas Marzá; Macarena Poyatos de Lorenzo; Mónica Viciana Miralles; M. Sanaú; Eduardo Víctor Peris Fajarnés. En: XXII REUNIÓN DEL GRUPO ESPECIALIZADO DE QUÍMICA ORGANOMETÁLICA (GECO). 2004.

**30 Title of the work:** Nous complexos amb lligands carbens en coordinació tripodal

**Name of the conference:** Tercera Trobada de Joves Investigadors dels Païssos Catalans

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Tarragona,

**Date of event:** 26/01/2004



Elena Mas Marzá; Macarena Poyatos de Lorenzo. En: Tercera Trobada de Joves Investigadors dels Païssos Catalans. 2004.

**31 Title of the work:** Nous complexos amb lligands carbens en coordinació tripodal.

**Name of the conference:** Tercera Trobada de Joves Investigadors dels Països Catalans

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Tarragona,

**Date of event:** 26/01/2004

Elena Mas Marzá; Macarena Poyatos de Lorenzo. En: Tercera Trobada de Joves Investigadors dels Països Catalans. 2004.

**32 Title of the work:** New Rh and Ir complexes with a trisimidazolylidene Tp ligand

**Name of the conference:** 7th FIGIPS CONFERENCE IN INORGANIC CHEMISTRY

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Lisboa (Portugal),

**Date of event:** 11/06/2003

Elena Mas Marzá; Macarena Poyatos de Lorenzo; Eduardo Víctor Peris Fajarnés. En: 7th FIGIPS CONFERENCE IN INORGANIC CHEMISTRY. 2003.

**33 Title of the work:** New Rh(I) and Rh(III) bisimidazolium-carbene complexes

**Name of the conference:** 7th FIGIPS CONFERENCE IN INORGANIC CHEMISTRY

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** Lisboa (Portugal),,

**Date of event:** 11/06/2003

Macarena Poyatos de Lorenzo; Elena Mas Marzá; M. Sanaú; Eduardo Víctor Peris Fajarnés. En: 7th FIGIPS CONFERENCE IN INORGANIC CHEMISTRY. 2003.

**34 Title of the work:** Síntesis, estructura y reactividad de nuevos carbenos heterocíclicos pinza de Rh y Ru.

**Name of the conference:** XX REUNIÓN ANUAL DE QUÍMICA ORGANOMETÁLICA (GECO)

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**City of event:** S. Sebastian,

**Date of event:** 17/07/2002

Macarena Poyatos de Lorenzo; Elena Mas Marzá; José Antonio Mata Martínez; Eduardo Víctor Peris Fajarnés. En: XX REUNIÓN ANUAL DE QUÍMICA ORGANOMETÁLICA (GECO). 2002.

**35 Title of the work:** New Rh(I) and Rh(III) bisimidazol-2-ylidene complexes: Synthesis, reactivity, and molecular structures

**Name of the conference:** Workshop on the Frontiers of Inorganic Chemistry

**City of event:** COPPER MOUNTAIN,

**Type of contribution:** Scientific paper

Poyatos, M; Sanaú, M; Peris, E. "INORGANIC CHEMISTRY". 42 - 8, pp. 2572 - 2576. 21/04/2003. ISSN 0020-1669, ISSN 1520-510X



## R&D management and participation in scientific committees

### Scientific, technical and/or assessment committees

**1 Committee title:** ANR-generic call for proposals

**Primary (UNESCO code):** 230000 - Chemistry

**Affiliation entity:** Agence Nationale de la Recherche **Type of entity:** State agency

**City affiliation entity:** France

**2 Committee title:** Gestión de Evaluaciones de la Dirección de Evaluación y Acreditación (DEVA) de la Agencia Andaluza del Conocimiento

**Primary (UNESCO code):** 230000 - Chemistry

**Affiliation entity:** Agencia Andaluza del Conocimiento

**City affiliation entity:** Andalusia, Spain

**3 Committee title:** Programa Estatal de Fomento de la Investigación Científica y Técnica de Excelencia

**Primary (UNESCO code):** 230000 - Chemistry

**Affiliation entity:** MINISTERIO DE ECONOMIA Y **Type of entity:** State agency  
COMPETITIVIDAD

### Organization of R&D activities

**1 Title of the activity:** 8th Latin American Symposium on Coordination and Organometallic Chemistry

**Type of activity:** Conference

**Convening entity:** Latin American Symposium on Coordination and Organometallic (SILQCOM)

**City convening entity:** online meeting

**Start-End date:** 10/03/2022 - 11/03/2022

**2 Title of the activity:** XIIth International School on Organometallic Chemistry "Marcial Moreno Mañas"

**Type of activity:** Escuela

**Geographical area:** Internacional

**Convening entity:** Red ORFEO-CINQA

**Type of entity:** Redes de Excelencia

**City convening entity:** Madrid, Community of Madrid, Spain

**Start-End date:** 12/06/2019 - 14/06/2019

**Duration:** 3 days

**3 Title of the activity:** XXX Reunión Grupo Especializado en Química Organometálica

**Type of activity:** National meeting on Organometallic **Geographical area:** European Union Chemistry

**Convening entity:** Grupo Especializado en Química Organometálica (GEQO)

**City convening entity:** Castellon, Valencian Community, Spain

**Start-End date:** 12/06/2012 - 14/06/2012

**Duration:** 3 days



## Other achievements

### Stays in public or private R&D centres

1 **Entity:** Laboratoire de Chimie Organométallique et de Catalyse, Université Louis Pasteur

**City of entity:** Estrasburgo, France

**Start date:** 2005

**Name of programme:** Síntesis de nuevos ligandos carbeno-oxazolina, coordinación a diferentes metales de transición y aplicaciones catalíticas

**Goals of the stay:** Doctorate

2 **Entity:** Laboratoire de Chimie Organométallique et de Catalyse, Université Louis Pasteur

**City of entity:** Estrasburgo, France

**Start date:** 2004

**Name of programme:** Síntesis de catalizadores quirales de Ru basados en ligandos carbeno-oxazolina y aplicaciones catalíticas

**Goals of the stay:** Doctorate

3 **Entity:** Yale Chemistry Department, Yale University

**City of entity:** New Haven, United States of America

**Start date:** 2003

**Name of programme:** Reactividad de complejos metálicos con carbonos N-heterocíclicos (NHC) en reacciones de activación C-H

**Goals of the stay:** Doctorate

4 **Entity:** Departament de Química Física i Inorgànica, Universitat Rovira i Virgili

**City of entity:** Tarragona, Spain

**Start date:** 2002

**Name of programme:** Inmovilización de catalizadores de Pd en matrices de tipo montmorillonita. Estudio de su eficacia en reacciones de Heck

**Goals of the stay:** Doctorate