

# CURRICULUM VITAE

**Juana María Bernal Palazón, pHD.**

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## PRESENT POSITION

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- Postdoc in the Department of Biochemistry and Molecular Biology B and Immunology, Faculty of Chemistry, University of Murcia (July 2014-present).
- Specialist Technical in hair dyeing technology in the Department of Biochemistry and Molecular Biology (B) and Immunology, University of Murcia (May 2013-present).

## POST-GRADUATE EDUCATION AND RESEARCH POSITIONS

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- BSc in Chemical Engineer (2009). University of Murcia.
- BSc Thesis in Chemical Engineer. University of Murcia. (July 2009). **"Effect of ILs on the enzymatic hydrolysis of cellulose"**, (*Efecto de los ILs en la hidrólisis enzimática de celulosa*). Supervisor: Pedro Lozano Rodríguez. Mark: A
- BSc in Chemical Engineer (2010-Bologna Plan). University of Murcia.
- BSc Thesis in Chemical Engineer (2010-Bologna Plan). University of Murcia. (September 2010). **"The role of ionic liquids in the activity and stability of Gluco-hydrolases"**, (*Estudio de actividad y estabilidad de Gluco-hidrolasas en líquidos iónicos*). Supervisor: Pedro Lozano Rodríguez. Mark: A
- MSc Thesis in Biochemistry. University of Murcia. (10-2010). **"Enzymatic synthesis of biodiesel in mono-and multiphase systems based in ILs"**, (*Síntesis enzimática de biodiesel en sistemas mono- y multifásicos basados en ILs*). Supervisor: Pedro Lozano Rodríguez. Mark: A
- MSc Biochemistry and Applied Molecular Biology (2010).
- *Minor Thesis (November 2011)* **"Enzymatic synthesis of biodiesel in hydrophobic ILs"**. (*Síntesis enzimática de biodiesel en ILs hidrofóbicos*). Supervisor: Pedro Lozano Rodríguez. Mark: A

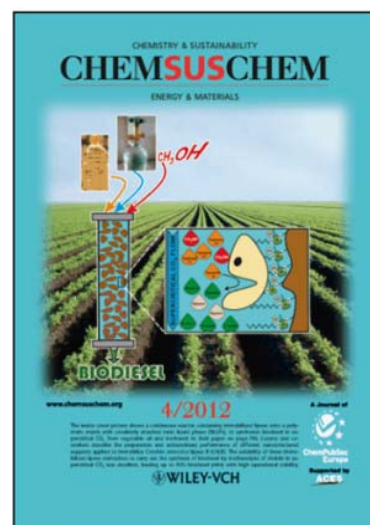
## PUBLICATIONS:

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(Key: B = full book, CB = book chapter, A = article, R = "review", E = editor, S = Scientific-Technical Document restricted)

- Authors: Pedro Lozano\*, Juana María Bernal, Rungtiwa Piamtongkam, Dirk Fetzer, Michel Vaultier  
 Title: **One-Phase Ionic Liquid Reaction Medium for Biocatalytic Production of Biodiesel**  
 Journal: *ChemSusChem* Key: A Vol: 3 Pages: 1359-1363 Year: 2010

- *Authors: Pedro Lozano\*, Berenice Bernal, Juana M. Bernal, Mathieu Pucheault and Michel Vaultier*  
*Titler: Stabilizing immobilized cellulase by ionic liquids for saccharification of cellulose solutions in 1-butyl-3-methylimidazolium chloride*  
*Journal: Green Chemistry Key: A Vol: 13 Pages: 1406-1410 Year: 2011*
- *Authors: Pedro Lozano\*, Juana M. Bernal and Michel Vaultier*  
*Titler: "Towards continuous sustainable processes for enzymatic synthesis of biodiesel in hydrophobic ionic liquids/supercritical carbon dioxide biphasic systems"*  
*Journal: Fuel Key: A Vol: 90 Pages: 3461-3467 Year: 2011*
- *Authors: Prof. Pedro Lozano\*, Prof. Eduardo García-Verdugo, Juana M. Bernal, Diana F. Izquierdo, Prof. M. Isabel Burguete, Prof. Gregorio Sánchez-Gómez, Prof. Santiago V. Luis\**  
*Titler: "Immobilised Lipase on Structured Supports Containing Covalently Attached Ionic Liquids for the Continuous Synthesis of Biodiesel in scCO<sub>2</sub>"*  
*Journal: ChemSusChem Key: A Vol: 5 Pages: 790-798 Year: 2012*
- *Authors: Prof. Pedro Lozano<sup>1</sup>\*, Prof. Eduardo García-Verdugo<sup>2</sup>, Juana M. Bernal<sup>1</sup>, Diana F. Izquierdo<sup>2</sup>, Prof. M. Isabel Burguete<sup>2</sup>, Prof. Gregorio Sánchez-Gómez<sup>3</sup>, Prof. Santiago V. Luis<sup>2</sup>\**  
*Titler: "Immobilised Lipase on Structured Supports Containing Covalently Attached Ionic Liquids for the Continuous Synthesis of Biodiesel in scCO<sub>2</sub>"*  
*Journal: ChemSusChem Key: Inside Coved Vol: 5 Pages: 602 Year: 2012*



- *Authors: Juana Maria Bernal<sup>1</sup>, Pedro Lozano <sup>1</sup>\*, Eduardo Garcia-verdugo<sup>2</sup>, Maria Isabel Burguete<sup>2</sup>, Gregorio Sánchez-Gómez<sup>3</sup>, Gregorio Lopez-lopez<sup>3</sup>, Mathieu Pucheault<sup>4</sup>, Michel Vaultier<sup>4</sup>, Santiago V. Luis<sup>2</sup>*  
*Titler: "Supercritical (Bio)catalysis: Application to Biodiesel Synthesis"*  
*Journal: Molecules Key: R Vol: 17 (7) Pages: 8696-8719 Year: 2012*

- *Authors: Pedro Lozano<sup>1\*</sup>, Juana M. Bernal<sup>1</sup> and Michel Vaultier<sup>4</sup>*  
*Title: "A clean enzymatic process for producing flavour esters by direct esterification in switchable ionic liquid/solid phases<sup>†</sup>"*

*Journal: Green Chemistry*    *Key: A + Inside Coverd*    *Vol: 14*    *Pages: 3026-3033*    *Year: 2012*



- *Authors: Diana F. Izquierdo, Juana M. Bernal, M. Isabel Burguete, Eduardo García Verdugo, Pedro Lozano\* and Santiago V. Luis\**  
*Title: "An efficient microwave-assisted enzymatic resolution of alcohols using a lipase immobilised on supported ionic liquid-like phases (SILLPs) †"*

*Journal: RSC Advances*    *Key: A*    *Vol: 3*    *Pages: 13123–13126*    *Year: 2013*

- *Authors: Pedro Lozano, Juana M. Bernal, Almudena Lajarin, Daniel Romera, Eduardo Garcia-Verdugo, Gregorio Sanchez-Gomez, Mathieu Pucheault, Michel Vaultier, M. Isabel Burguete, Santiago V. Luis*  
*Title: "A Green Approach for Producing Solvent-free Anisyl Acetate by Enzyme-catalyzed Direct Esterification in Sponge-like Ionic Liquids Under Conventional and Microwave Heating"*  
*Journal: Current Green Chemistry*    *Key: A*    *Vol: 1*    *Pages: 45-154*    *Year: 2014*

- *Autores: Pedro Lozano, Juana M Bernal, Celia Gomez, Eduardo Garcia-verdugo, M. Isabel Burguete, Gregorio Sanchez-Gomez, Michel Vaultier, Santiago V. Luis*  
*Title: "Green bioprocesses in sponge-like ionic liquids"*  
*Journal: Catalysis Today*    *Key: A (Impress)*    *Año: 2014*

**CONTRIBUTIONS TO CONGRESSES: POSTERS**

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- **Authors:** Juana M. Bernal, Pedro Lozano y Michael Vaultier  
**Titler:** "Enzymatic synthesis of biodiesel in mono- and multiphase systems based on ILs and scCO<sub>2</sub>"  
**Congress:** 5th International Meeting on Biotechnology, Biotec2010  
**Plase:** Pamplona, España  
**Date:** September 29th- October 1st, 2010
  
- **Authors:** Berenice Bernal, Juana M. Bernal, Pedro Lozano and Michel Vaultier  
**Titler:** "Enzymatic hydrolysis of cellulose in ionic liquids"  
**Congress:** 5th International Meeting on Biotechnology, Biotec2010  
**Plase:** Pamplona, España  
**Date:** September 29th- October 1st, 2010
  
- **Authors:** **Pedro** Lozano, Eduardo García-Verdugo, J. M<sup>a</sup> Bernal, Mathieu Pucheault, Maria I Burguete, Santiago Luis, Michel Vaultier  
**Titler:** "Continuous enzymatic synthesis of biodiesel in ILs/scCO<sub>2</sub> biphasic systems: The use of SILP as enzyme immobilization support"  
**Congress:** GPE 2011 Congress  
**Plase:** Kuala Lumpur, Malaysia  
**Date:** 6th-8th December, 2011
  
- **Authors:** Juana M. Bernal, Prof. M. Isabel Burguete, Mrs. Diana Flor Izquierdo, Dr. Eduardo García-Verdugo, Prof. Gregorio López-López, Prof. Pedro Lozano, Prof. Santiago V. Luis, Prof. Gregorio Sánchez-Gómez.  
**Titler:** "Polymer-Supported Ionic Liquid-Like Phases (SILLPs): Developing materials for practical catalytic and biocatalytic applications"  
**Congress:** ICGC4 - 4th International IUPAC Conference on Green Chemistry  
**Plase:** Foz do Iguaçu/PR, Brazil  
**Date:** 25th-29th August, 2012

**CONTRIBUTIONS TO CONGRESSES: ORAL COMMUNICATIONS**

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- **Authors:** Pedro Lozano, J.M. Bernal y Michel Vaultier
- **Titler:** "Batch and continuous flow efficient enzymatic synthesis of biodiesel in mono and multiphase systems based on ILs and scCO<sub>2</sub>"  
**Congress:** Green Solvents Conference  
**Plase:** Berchtesgaden, Germany  
**Date:** October 10th-13th, 2010
  
- **Authors:** **Juana** M. Bernal, Pedro Lozano y Michael Vaultier  
**Titler:** "Enzymatic synthesis of biodiesel in mono- and multiphase systems based on ILs and scCO<sub>2</sub>"  
**Congress:** 5th International Meeting on Biotechnology, Biotec2010  
**Plase:** Pamplona, España  
**Date:** September 29th- October 1st, 2010

- **Authors:** Juana M. Bernal, P. Lozano, Eduardo García-Verdugo, M. I. Burguete, S. V. Luis y M. Vaultier.  
**Titler:** "Síntesis enzimática de biodiesel en sistemas multifásicos basados en líquidos iónicos y scCO<sub>2</sub>"  
**Congress:** V- Reunión de expertos en Tecnologías de fluidos comprimidos.  
**Plase:** Burgos, Spain  
**Date:** 15th-17th May, 2011
- **Authors:** Pedro Lozano, J. M<sup>a</sup> Bernal, B. Bernal, G. Sánchez- Gómez, Eduardo García-Verdugo, S.V. Luis, M. I. Burguete, M. Pucheault, and Michel Vaultier  
**Titler:** "Enzymatic processes in multiphasic neoteric systems: ionic liquids and supercritical carbon dioxide"  
**Congress:** Frontiers in White Biotechnology  
**Plase:** Delft, The Netherlands  
**Date:** 21st-22sd June, 2011
- **Authors:** Diana F. Izquierdo, Juana M. Bernal, María I. Burguete, Eduardo García-Verdugo, Pedro Lozano and Santiago V. Luis  
**Titler:** "The use of Supported Ionic Liquid Phases (SILLPS) for the development of biocatalytic processes under nonconventional conditions"  
**Congress:** 9th Green Chemistry Conference.  
**Plase:** Alcalá de Henares – España  
**Date:** 14th-16th September, 2011
- **Authors:** Pedro Lozano, Eduardo García-Verdugo, Juana M. Bernal, Diana F. Izquierdo, M. Isabel Burguete, Gregorio Sánchez-Gómez, and Santiago V. Luis.  
**Titler:** "Continuous green biocatalytic synthesis of biodiesel in multiphasic neoteric systems"  
**Congress:** 15th International Congress on Catalysis.  
**Plase:** Munich, Germany  
**Date:** 1st-6th July, 2012
- **Authors:** Pedro Lozano, Juana M. Bernal y Alicia Navarro.  
**Titler:** "Clean enzymatic process for natural flavor ester synthesis in switchable ionic liquid/solid phases"  
**Congress:** GREEN SOLVENTS CONFERENCE  
**Plase:** Boppard/Rhine-Valley, Germany  
**Date:** 8th-10th October, 2012
- **Authors:** Juana M. Bernal; Alicia Navarro; Gregorio Sanchez-Gomez; Gregorio Lopez-Lopez; Pedro Lozano.  
**Titler:** "Ionic liquids or ionic sponges?: Clean enzymatic process for natural flavour ester synthesis in switchable ionic liquid/solid phases"  
**Congress:** 5th CONFERENCE ON IONIC LIQUIDS- COIL-5  
**Plase:** Algarve, Portugal  
**Date:** 21st-25th April, 2013
- **Authors:** Bernal, Juana M. (1); Garcia-Verdugo, E. (2); Burguete, M. I. (2); Sanchez, G. (1); Vaultier, M. (3); Luis, S. V. (2); Lozano, P. (1)  
**Titler:** "GREEN BIOPROCESSES IN SPONGE-LIKE IONIC LIQUIDS"

**Congress:** GPE 2014  
**Plase:** Sevilla, España  
**Date:** 7th-10th April, 2014

- **Authors:** Pedro Lozano, Juana M<sup>a</sup> Bernal, Celia Gomez, Antonio G. Jara, Maria J. Lopez, Gregorio Sanchez-Gomez  
**Titler:** Sponge-Like Ionic Liquids: Switchable green solvents for biocatalysis and extraction  
**Congress:** 7th Green Solvents Conference  
**Plase:** Dresden · Germany  
**Date::** 19 - 22 October 2014

#### FELLOWSHIPS

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- MINECO Short Stay Fellowship. L'Institut des Science Moléculaires Group. Université Bordeaux 1-UMR 5255 CNRS (France). May 2012 - August 2012.

#### SCIENTIFIC SHORT STAYS

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- l'Institut des Science Moléculaires Group. Université Bordeaux 1-UMR 5255 CNRS (France). May 2012 - August 2012. (13 weeks)

#### COMPUTER SKILLS

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- Windows (Word, Excell, PowerPoint, etc): user level.
- Internet: user level.
- Data processing tools: SigmaPlot, Excel.
- Online databases

#### LANGUAGES

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- Spanish (mother language)
- English (fluent)

#### FURTHER INFORMATION

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##### *Academic distinctions*

- Internship in the Dpts. of Chemical Engenier (courses 2006-2007)  
*Supervision of Research Works and participation in PhD Thesis committees*
- Supervisor (together with Prof. Pedro Lozano) of the Project Final of Degree in Chemical Engineering presented by Ms. Alicia Navarro Trillo (February, 2013). "**Isoamyl Acetate synthesis in hydrophobic ionic liquids**". Universidad de Murcia.
- Supervisor (together with Prof. Pedro Lozano) of the Project Final of Degree in Chemical Engineering presented by Ms. Almudena Lajarín Moreno (September, 2013). "**Anisyl Acetate synthesis in hydrophobic under MW in hydrophobic ionic liquids**". Universidad de Murcia.
- Supervisor (together with Prof. Pedro Lozano) of the Project Final of Degree in Chemical Engineering presented by Mr. Javier Abrisqueta (July, 2013). "**Dynamic Kinetic Resolution of alcohol in hydrophobic ionic liquids**". Universidad de Murcia.

## CURRICULUM VITAE

- Supervisor (together with Prof. Pedro Lozano) of the Project Final of Degree in Chemical Engineering presented by Mr. Daniel Romera Rojo (July, 2013). **"Anisyl Acetate synthesis in hydrophobic ionic liquids"**. Universidad de Murcia.
- Supervisor (together with Prof. Pedro Lozano) of the MSc Thesis in Biochemistry by Ms. Vanesa Fernández. Universidad de Murcia. (September, 2013).
- Supervisor (together with Prof. Pedro Lozano) of the Project Final of Degree in Chemistry presented by Mr. David José Meseguer Pardo (July, 2014). **"Kinetic Resolution of alcohol under microwave assisted in hydrophobic ionic liquids"**. Universidad de Murcia.
- Supervisor (together with Prof. Pedro Lozano) of the Project Final of Degree in Chemistry presented by Ms. María José López Ruiz (September, 2014). **"Rosmary Essential oil extraction (*Rosmarinus officinalis* L.) with Ionic Liquids with Sponge Like Character"**. Universidad de Murcia.

Murcia, September 2014