

Part A. PERSONAL INFORMATION		CV date		26/06/2019
First and Family name	Jesus M ^a Requies Martinez			
Social Security, Passport, ID number	29033162D	Age	46	
Researcher numbers	Researcher ID	8613016500		
	Orcid code	0000-0002-9764-8377		

A.1. Current position

Name of University/Institution	Bilbao School of Engineering - University of the Basque Country (EHU/UPV)			
Department	Chemical and Environmental Engineering Department			
Address and Country	Plaza Ingeniero Torres Quevedo n ^o 1, 49013, Bilbao			
Phone number	946017242	E-mail	jesus.requies@ehu.eus	
Current position	Associate Professor	From	19/07/2012	
Espec. cód. UNESCO	3303			
Palabras clave	Chemical Engineering, catalyst characterization, biofuels, biomass, hydrogen, oxidation reaction, heterogeneous catalysis			

A.2. Education

PhD	University	Year
Chemical Engineer	University of the Basque Country (EHU/UPV)	2000
Doctor of chemical engineering	Bilbao School of Engineering - University of the Basque Country (EHU/UPV)	2006

A.3. JCR articles, h Index, thesis supervised...

Regarding to the number of the six-year research periods is two, where the last one it was obtained on 12/31/2014. The number of doctoral thesis supervised in those last 10 years is 2, one of them was defended in the year 2012 by Dr. I. Gandarias with title "Glycerol hydrogenolysis by in situ generated hydrogen: development of novel reactive catalytic systems". The other one by the doctoral candidate Sara García Fernandez entitled "Development of advanced catalytic systems for alcohol hydrogenolysis reactions biomass derivatives" defended in May 2016. The total number of citations in the 50 articles indexed in the JCR is 1147, with the average number of citations in the last 5 years of 203.6 citations / year, in addition to these from the 48 indexed articles in the JCR, 40 of them corresponding to the first quartile, and all of them makes my index h is 26.

Part B. CV SUMMARY (max. 3500 characters, including spaces)

My research trajectory begins with my incorporation in March 2001 to the consolidated research group SuPrEn (Sustainable Process Engineering) of the UPV / EHU University. Due to my work, I defended my Doctoral Thesis - CATALYTIC PARTIAL OXIDATION OF THE NATURAL GAS OVER NICKEL CATALYSTS FOR PRODUCING HYDROGEN AND SYNTHESIS GAS-. I was awarded a doctorate in Chemical Engineering from the UV/EHU University with a distinction "cum laude" given unanimously in March 2006.

Regarding my research work, this has been oriented towards development of chemical processes for obtaining clean energy vectors, such as hydrogen, and in recent years, my research lines are oriented towards production of high chemical added-value products from lignocellulosic-based biorefineries. I have taken part in more than 33 research projects financed by different public institutions, and another 12 contracts have been financed by different private entities. Among these projects, I have been the principal investigator in three financed by different public institutions (two financed by Spanish Government and one financed by UPV/EHU University) and 4 financed by private entities (Tecnalia, SGS, etc). I have 50 papers published in journals included in the JCR, and other article published in DYNA

magazine with relative quality index (included in the Science Citation Index), 3 chapters of book, and I am co-editor of a conference book. I have participated in more than 80 national and international conferences as speaker (where in 2 of them as invited speaker) and poster.

I have made three different research stays. Two of them were at the Rochal Institut of Technology of Stockholm in Sweden, participating in two Suspower European projects (2006 and 2007). The first one lasted 7 weeks (Nov-Dec 2006) and the second one lasted one week (May 2007). The other research stay lasted 8 months at the Paul Scherrer Institut in Villigen (Switzerland) from June 2007 to January 2008). In addition, throughout my research trajectory, I have maintained a close with the Institute of Catalysis and Petrochemicals (CSIC-Madrid and Malaga) with frequent short visits. Due to those different research stays, I have published different paper with different research groups. In addition to the co-direction of the two doctoral thesis, I have also supervised more than 15 students in their bachelor final project and to four students in their Master's Final Project. I collaborate as reviewer in different journals included in the JCR. Regarding the quality of my research, the Quality Assessment and Accreditation Agency of the Basque Government (Unibasq, previously Uniqua), I have positively evaluated the following sections C1, C2 and B1, B2, and B3. I have also collaborated in the organization of the Iberian Symposium on Hydrogen, Fuel Cells and Advanced Batteries Hyceltec 2008, where the next year is going to celebrate the 7th edition, and I was the secretary of the 4th International Symposium on the Catalysis for Clean Energy and Sustainable Chemistry hold in 2018. Finally, I also collaborate as external auditor of the 5S quality, and I have actively participated in its implementation in the laboratories of the Chemical and Environmental Engineering Department. The medium / long-term goals are to develop sustainable, economical and environmentally friendly processes using biomass as a raw material for the production of high added value products that can be replace the obtained ones by fossil raw materials.

Part C. RELEVANT MERITS

C.1. Publications (including books)

1. Authors: Requies, J.M., Frias, M., Cuezva, M., Iriondo, A., Agirre, I., Viar, N.
Title: "Hydrogenolysis of 5-Hydroxymethylfurfural To Produce 2,5-Dimethylfuran over ZrO₂ supported Cu and RuCu Catalysts"
Journal: (2018) *Industrial and Engineering Chemistry Research*, 57 (34), pp. 11535-11546.
2. Authors: Urbina, L., Guaresti, O., Requies, J., Gabilondo, N., Eceiza, A., Corcuera, M.A., Retegi, A.
Title: Design of reusable novel membranes based on bacterial cellulose and chitosan for the filtration of copper in wastewaters
Journal: (2018) *Carbohydrate Polymers*, 193, pp. 362-372
3. Authors: García-Fernández, S., Gandarias, I., Tejido-Núñez, Y., Requies, J., Arias, P.L.
Title: Influence of the Support of Bimetallic Platinum Tungstate Catalysts on 1,3-Propanediol Formation from Glycerol
Journal: (2017) *ChemCatChem*, 9 (24), pp. 4508-4519.
4. Authors: García-Fernández, S., Gandarias, I., Requies, J., Soulimani, F., Arias, P.L., Weckhuysen, B.M.
Title: The role of tungsten oxide in the selective hydrogenolysis of glycerol to 1,3-propanediol over Pt/WO₃
Journal: (2017) *Applied Catalysis B: Environmental*, 204, pp. 260-272.
5. Authors: Iriondo, A., Mendiguren, A., Güemez, M.B., Requies, J., Cambra, J.F.
Title: 2,5-DMF production through hydrogenation of real and synthetic 5-HMF over transition metal catalysts supported on carriers with different nature
Journal: (2017) *Catalysis Today*, 279, pp. 286-295.
6. Authors: Guzmán, I., Heras, A., Güemez, M.B., Iriondo, A., Cambra, J.F., Requies, J.

Title: Levulinic Acid Production Using Solid-Acid Catalysis
Journal : (2016) Industrial and Engineering Chemistry Research, 55 (18), pp. 5139-5144

7. Authors: García-Fernández, S., Gandarias, I., Requies, J., Güemez, M.B., Bennici, S., Auroux, A., Arias, P.L.

New approaches to the Pt/WO₃ catalytic system behavior for the selective glycerol hydrogenolysis to 1,3-propanediol

Journal: (2015) Journal of Catalysis, 323, pp. 65-75.

8. Authors: Agirrezabal-Telleria, I., Requies, J., Güemez, M.B., Arias, P.L.

Title: Dehydration of d-xylose to furfural using selective and hydrothermally stable arenesulfonic SBA-15 catalysts

Journal: (2014) Applied Catalysis B: Environmental, 145, pp. 34-42

9. Authors: Güemez, M.B., Requies, J., Agirre, I., Arias, P.L., Barrio, V.L., Cambra, J.F.

Title: Acetalization reaction between glycerol and n-butyraldehyde using an acidic ion exchange resin. Kinetic modelling

Journal: (2013) Chemical Engineering Journal, 228, pp. 300-307

10. Authors: Gandarias, I., Arias, P.L., Requies, J., Güemez, M.B., Fierro, J.L.G.

Title: Hydrogenolysis of glycerol to propanediols over a Pt/ASA catalyst: The role of acid and metal sites on product selectivity and the reaction mechanism

Journal: (2010) Applied Catalysis B: Environmental, 97 (1-2), pp. 248-256

C.2. Research projects and grants

1. Research Project Title: Valorización de Biomasa mediante procesos catalíticos avanzados
Financed by: MINECO – Call: Convocatoria Planes Nacionales

Duration: from 01/01/2019 to: 31/12/2021

Principal Investigator: Dr. Jesús M^a Requies, y Pedro Luis Arias Ergueta. Participation: Principal Investigator

Funding: 167.000 €

2. Research Project Title: Tecnologías catalíticas avanzadas para la transformación de residuos biomásicos en biocombustibles y productos renovables

Financed by: MINECO – Call: Convocatoria Planes Nacionales

Duration: from 01/12/2016 to: 31/12/2018

Principal Investigator: Dr. Jesús M^a Requies, y Pedro Luis Arias Ergueta. Participation: Principal Investigator

Funding: 156.000 €

3. Research Project Title: Microcromatografo de Gases Modelo Compact GC

Financed By: UPV/EHU. Call: Infraestructure

Duration from: 01/01/2016 to: 31/12/2016

Principal Investigator: Jesús M^a Requies. Participation: Principal Investigator

Funding: 23543,27 Euros

4. Research Project Title: Nuevos procesos catalíticos en biorrefinerías: transformación de carbohidratos en bioproductos de interés

Financed by: MINECO- Call: Convocatoria Planes Nacionales

Duration from: 01/12/2013 to: 31/12/2015

Principal Investigator: Dra .M.B.Güemez. Participation: Research

Funding: 90000.00 €

5. Research Project Title: Bio-Oils: Reformado catalítico de productos oxigenados derivados de la biomasa

Financed By: Ministerio de Ciencia e Innovación.- Call: Convocatoria Planes Nacionales

Duration from: 01/01/2012 to: 30/12/2014

Principal Investigator: José Francisco Cambra Ibáñez. Participation: Research

Funding: 120.000 €

6. *Research Project Title: Aprovechamiento de los gases del proceso de pirolisis de residuos de poda para la obtención de coque*

Financed By: BEFESA ZINC ASER

Duration from: 01/01/2011 to: 30/06/2012

Principal Investigator: Jose Francisco Cambra Ibáñez. Participation: Research

Funding: 40.000 Euros

7. *Research Project Title: Investigación y desarrollo de tecnologías para el aumento de la eficiencia energética, captura y valorización de CO₂ (VALCAPEF). (IE09-263 Y IE10-288)"*

Duration from: 01/01/2009 to: 30/12/2010

Principal Investigator: Pedro Luis Arias. Participation: Research

Financed by: Basque Country Government

Funding: 86.985 euros.

C.3. Contracts

Contract/Project: *SOSTENER-Investigación y desarrollo de soluciones integradas para la minimización de impactos, gestión y valorización energética y económica de emisiones de CO₂ y residuos orgánicos. Gestión de emisiones.*

Contract type: Contracted Research (75 % Jornada)

Financed By: Basque Country Government

From: January 2006 to: Sep 2009

Responsible Research: Pedro Luis Arias

C.4. Patents

C.5, C.6, C.7... (e. g., Institutional responsibilities, memberships of scientific societies...)

Experience on organizing research activities

1. *Title: Hyceltec 2008*

Activity: International symposium. Data: July 2008

2. *Title: Hyceltec publication*

Activity: Co-Editor of the Symposium Book "Hyceltec 2008", Data 2008

3. *Title: CCESC 2018*

Activity: Secretary of the symposium CCESC 2018

C.6

Management experience

1. *Title: Experience as external auditor of the 5S quality, and its implementation in the laboratories of the Chemical and Environmental Engineering Department. Activity: Quality Data: 2006-Today*

2. *Title: Departmental Section Coordination in the Department of Environmental and Chemical Engineering: Coordinator. Data: March 2012-February 2016*

C.7

3. *Thesis in progress: "2,5 Dimethylfuran from hydroxymethylfurfural using no-novel catalysts". PH student: Nerea Viar Antuñano, Supervisors: Jesús M^a Requies and Ion Agirre*