

Part A. PERSONAL INFORMATION

CV date 01/08/2015

First and Family name	José Antonio Odriozola Gordon		
Social Security, Passport, ID number	28406434P	Age	61
Researcher numbers	Researcher ID	N-2777-2013	
	Orcid code	0000-0002-8283-0459	

A.1. Current position

Name of University/Institution	Universidad de Sevilla			
Department	Dpto. de Química Inorgánica /Instituto de Ciencia de Materiales			
Address and Country	Avd Américo Vespucio 49, CP 41092 Sevilla, Spain			
Phone number	954489543	E-mail	odrio@us.es	
Current position	Catedrático de Universidad		From	02/04/97
Espec. cód. UNESCO				
Palabras clave	Catálisis. Química Inorgánica			

A.2. Education

PhD	University	Year
Licenciado en Química	Universidad de Sevilla	1976
Doctorado	Universidad de Sevilla	1981

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

Number of papers		Average citations per paper	h index	Times cited					
Total	Q1			Sum	2012	2013	2014	2015	2016
258	170	17,24	36	4447	359	450	430	394	169

Thesis supervised	
Defended	In process
25	10

Patents	
Issued to companies	US's property
5	6

Sexenios	
Number	Date
6	31/12/2014

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

Chair of Inorganic Chemistry of the University of Sevilla and Research Professor of the Materials Science Institute of Sevilla, Spain. Fellow of the Spanish Society of Catalysis and of the American Chemical Society

Ph.D. in Chemistry by the University of Sevilla (1981), Associate Professor (January 1985) and further Chair of Inorganic Chemistry at the University of Sevilla since 1997. Postdoctoral studies at Lawrence Berkeley Laboratory under Gabor Somorjai's supervision. Visiting or invited Professor at Lawrence Berkeley Laboratory, University of Rennes 1, Universidad Nacional Autónoma de México and University of Strasbourg.

Head of the Materials Science and Technology Panel of the Spanish National Agency for Evaluation and Prospective, ANEP (2004-2006). From November 2008 to February 2016 Head of the Inorganic Chemistry Department. From September 2009 Head of the doctoral School of the University of Sevilla and Extremadura on Science and Technology of Materials.

Head of the Surface Science and Catalysis Laboratory since 1996, has focussed his research in the surface chemistry of materials. Among these studies catalyst synthesis and characterization of surface species under reaction conditions are especially noteworthy. Moreover, as a result of the strong cooperation with copper and steel mills of the region the group has acquired a reputed expertise on the surface characterisation of steels and other metallic substrates. This expertise together with the background in Catalysis has driven the group to develop a new research line focussed on the manufacture and study of micromonoliths and microchannel reactors for energetic and environmental catalytic

applications. The selection of papers and projects that follows tries to show up the main interests of the last years research.

Part C. RELEVANT MERITS

C.1. Publications (including books)

W.Y. Hernández, M.A. Centeno, F. Romero-Sarria, and J. A. Odriozola; Synthesis and characterization of $\text{Ce}_{1-x}\text{Eu}_x\text{O}_{2-x/2}$ mixed oxides and their catalytic activities for CO oxidation.; *Journal of Physical Chemistry C*, 113, 2009, 5629-5635. (CHEMISTRY, PHYSICAL; 29/139; Q1; IF: 4,772; Nº citas: 74)

O.H. Laguna, F. Romero-Sarria, M.A. Centeno, J.A. Odriozola; Gold supported on metal-doped Ceria catalysts (M=Zr, Zn and Fe) for the preferential oxidation of CO (PROX); *Journal of Catalysis*, 276, 2010, 360-370. (ENGINEERING, CHEMICAL; 5/134; Q1; IF: 6,921; Nº citas: 71)

J.G. Carriazo, M.A. Centeno, J.A. Odriozola, S. Moreno and R.A. Molina; The effect of Fe and Ce on Al-Pillared bentonites and their performances in catalytic oxidation reactions; *Applied Catálisis A: General*, 317, 2007, 120-128. (ENVIRONMENTAL SCIENCES; 22/221; Q1; IF: 3.942; Nº citas: 64)

G. Arzamendi, P.M. Dieguez, M. Montes, M.A. Centeno, J.A. Odriozola, L.M. Gandía; Integration of methanol steam reforming and combustion in a microchannel reactor for H_2 production: a CFD simulation study; *Catalysis Today*, 143, 2009, 25-31. (ENGINEERING, CHEMICAL; 11/134; Q1; IF: 4.034; Nº citas: 54)

F. Romero-Sarria, L.M. Martínez T., M.A. Centeno and J.A. Odriozola; Surface Dynamics of Au/CeO₂ catalysts during CO oxidation; *Journal of Physical Chemistry C*, 111, 2007, 14469-14475. (CHEMISTRY, PHYSICAL; 29/139; Q1; IF: 4,772; Nº citas: 49)

M.I. Domínguez, F. Romero-Sarria, M.A. Centeno and J.A. Odriozola; Gold/hydroxyapatite catalysts. Synthesis, characterization and catalytic activity to CO oxidation; *Applied Catalysis B: Environmental*, 87, 2009, 245-251. (ENGINEERING, CHEMICAL; 4/134; Q1; IF: 7.435; Nº citas: 43)

O.H. Laguna, M.A. Centeno, G. Arzamendi, L.M. Gandía, F. Romero-Sarria, J. A. Odriozola; Ce-Fe and Au/Ce-Fe catalysts for total and preferential oxidation of CO (TOX and PROX); *Catalysis Today*, 157, 2010, 155-159 (ENGINEERING, CHEMICAL; 11/134; Q1; IF: 4.034; Nº citas: 43)

F. Romero-Sarria, A. Penkova, L. M. Martínez T, M.A. Centeno, K. Hadjiivanov and J.A. Odriozola; Role of water in the CO oxidation reaction over Au/CeO₂: modification of the surface; *Applied Catálisis B: Environmental*, 84, 2008, 119-124. (ENGINEERING, CHEMICAL; 4/134; Q1; IF: 7.435; Nº citas: 39)

O.H. Laguna, M.A. Centeno, S. Järas, M. Boutonnet, J.A. Odriozola; Fe-doped ceria solids synthesized by the microemulsion method for CO oxidation reactions; *Applied catalysis B: Environmental*, 106, 2011, 621-629- (ENGINEERING, CHEMICAL; 4/134; Q1; IF: 7.435; Nº citas: 39)

T.R. Reina, C. Sayago, A. Pérez, S. Ivanova, M.A. Centeno, J.A. Odriozola; H_2 oxidation as criterion for PrOx catalyst selection: examples based on Au-CoO_x supported systems; *Journal of Catalysis*, 326, 2015, 161–171 (ENGINEERING, CHEMICAL; 5/134; Q1; IF: 6,921; Nº citas: 2; Featured article June 2015)

Book Chapters:

S. Ivanova, A. Pérez, M.A. Centeno and J.A. Odriozola; Structured catalysts for Volatile Organic Compounds removal in “New and Future Developments in Catalysis. Catalysis for Remediation and Environmental Concerns”. S. Suib (editor,) Elsevier 2013, p. 233-256. ISBN: 978-0-444-53870-3

S. Ivanova, O.H. Laguna, M.A. Centeno, A. Eleta, M. Montes and J.A. Odriozola; Microprocess technology for hydrogen purification in “Renewable Hydrogen Technologies”; L.M. Gandía, G. Arzamendi, P.M. Diéguez (editores), Elsevier 2013, p. 225-243. ISBN: 978-0-444-56352-1

O. Sanz, J. Echave, F. Romero-Sarria, J.A. Odriozola and M. Montes; Advances in structured and microstructured catalytic reactors for hydrogen production in “Renewable

Hydrogen Technologies”; L.M. Gandía, G. Arzamendi, P.M. Diéguez (editores), Elsevier 2013, p. 201-224. ISBN: 978-0-444-56352-1

T. Ramirez Reina, M. González, S. Palma, S. Ivanova, J.A. Odriozola; Twenty years of golden future in the Water Gas Shift reaction in “Heterogeneous Gold Catalysts and Catalysis”; RSC Catalysis Book Series N°18; Zhen Ma, Sheng Dai (editores), Royal Society of Chemistry 2014, p. 111-139. ISBN: 978-1-84973-917-7

O.H. Laguna, M.I. Domínguez, F. Romero-Sarria, J.A. Odriozola, M.A. Centeno; Role of oxygen vacancies in gold oxidation catalysis in “Heterogeneous Gold Catalysts and Catalysis”; RSC Catalysis Book Series N°18; Zhen Ma, Sheng Dai (editores), Royal Society of Chemistry 2014, p. 489-511. ISBN: 978-1-84973-917-7

O.H. Laguna, M.I. Domínguez, M.A. Centeno, J.A. Odriozola; Catalysts on metallic surfaces: monoliths and microreactors en “New materials for catalytic applications” Vasile I. Parvulescu, Erhard Kemnitz (editores), Elsevier 2016, in prensa. ISBN: 978-0-444-63588-4

T. Ramirez-Reina, J.L. Santos, N. García-Moncada, J.A. Odriozola; Development of robust mixed-conducting membranes with high permeability and stability in “Perovskites and Related Mixed Oxides” P. Granger, V.I. Parvulescu, S. Kaliaguine, W. Prellier (eds.), Wiley-VCH 2016, en prensa. ISBN 978-3-527-33763-7

C.2. Research projects and grants

Structured Catalytic Systems for Biofuels Production; Spanish Office of Economy and Competitiveness (ENE2015 -66975-C3-2-R); 01/January/2016-31/December/2018); 292.500€.

Valorization of Non-Conventional Gas: Microchannel Reactors in GTL; Spanish Office of Economy and Competitiveness (ENE2012-37431-C03-01); 01/January/2013-31/December/2015; 234.000€.

Integration of Microchannel Catalytic Reactors for Hydrogen Production from Alcohols; Spanish Office of Economy and Competitiveness (ENE2009-14522-C05-01); 01/August/2009-31/July/2012; 314.600€.

H₂ Production: Microchannel Reactors; Regional Government of Andalucía: Excellence Projects (P06-TEP-01965);13/April/2007–12/April/2010; 284.545,68€.

Microchannel Catalytic Reactors for Hydrogen Production from Alcohols; Spanish Office of Science and Technology (MAT2006-12386-C05-01); 01/January/2007 – 31/December/2009; 326.342€.

Study of Catalyst and Adsorbent Coatings on Metallic Surfaces for VOCs Abatement; Spanish Office of Science and Technology (MAT2003-06540-C02-01); 15/November/2003 - 14/November/2006; 161.000€.

C.3. Contracts

Desarrollo de sistemas catalíticos compactos para aplicaciones energéticas. Técnicas Reunidas S.A.; IP: José Antonio Odriozola Gordon; 01/04/2011 – 10/12/2013; Universidad de Sevilla; 476.536,65 €

Estudio en ambientes agresivos de aceros inoxidables ferríticos con adiciones especiales de determinados elementos de aleación. ACERINOX, S.A.; IP: José Antonio Odriozola Gordon; 15/04/2010 – 30/06/2011; Universidad de Sevilla; 66.481,20€

Procesado de bioetanol y otros alcoholes en sistemas compactos. DIGEMA, Diseño y Gestión Medioambiental S.L. ; IP: José Antonio Odriozola Gordon; 25/05/2009 – 31/12/2010; Universidad de Sevilla; 163.481,25 €

Reformado Catalítico de Glicerina. Befesa; ; IP: José Antonio Odriozola Gordon; 01/06/2008 – 31/05/2010; Universidad de Sevilla; 330.600 €

Microrreactores catalíticos para el reformado de gas y reacción de Fischer-Tropsch.

Petrobrás; IP (US): José Antonio Odriozola Gordon; 01/01/2006 – 31/12/2008; Universidad de Sevilla; 275.160 €

C.4. Patents

J.A. Odriozola, L.F. Bobadilla, F. Romero Sarria y M.A. Centeno. Method for preparing nanoparticles of Ni-Sn alloys and the use thereof in reforming reactions (ES P20090129 9; WO 2010/136619 A2); Priority date: 27/May/2009; University of Sevilla-CSIC

J.A. Odriozola, T. Ramirez Reina, M.A. Centeno, S. Ivanova, V. Idakiev, T. Tabakova, L.F. Bobadilla, F. Romero Sarria y M.A. Centeno. Gold catalysts and the use thereof in the water-gas shift reaction. (ES P201101163, PCT/ES2012/070717; WO 2013/057347 A1); Priority date: 17/October/2012; University of Sevilla-CSIC

J.A. Odriozola, S. Ivanova, J.L. Santos, M.A. Centeno, T. Ramirez Reina, V. Idakiev, T. Tabakova, I. Bogoev. Gold catalysts supported on hydrotalcites CuO/ZnO/Al₂O₃ and the use thereof in the water-gas shift reaction. (ES P201400683); Priority date: 14/October/2014; University of Sevilla-CSIC

E. Falabella Souza-Aguiar, A.F. Costa, L.M. Gandía, I.B. dos Santos, M.C. Arzamendi, L.C. Almeida, M.Montes, J.A. Odriozola. Method for Preparing Structured Catalytic Systems (WO 2014/085890 A1); Priority date: 06/December/2013; PETROLEO BRASILEIRO SA (Petrobrás), Brasil

N. García Moncada; M. González Castaño; F. Romero Sarria; S. Ivanova; M.A. Centeno Gallego; J.A. Odriozola Gordón. Catalytic complex formed by a mechanical mixture of catalyst and ionic conductor. (ES P201500441); Priority date: 02/June/2015; University of Sevilla-CSIC

C.5. Editor

M.J. Pomeroy, S. Hampshire, M.A. Centeno, J.A. Odriozola and Y. Laurent (Eds.). Nitrides and Oxynitrides 2, Materials Science Forum vol. 383, 2002; doi:10.4028/ www.scientific.net/MSF.383

Fanor Mondragón and José Antonio Odriozola, Special Issue Guest Editors of Volume 59, Issue 2-4, February 2016, dedicated to the XXIV Congreso Iberoamericano de Catálisis held in Medellín (Colombia) in September 2014.

Luis M. Gandía, Mario Montes and José A. Odriozola, Special Issue Guest Editors of a Catalysis Today volume dedicated to ICOSCAR5 (International Conference on Structured Catalysts and Reactors) to be held in San Sebastián (España) in June 2016.

C.6. Congress organization.

Chair of the Organizing Committee: 5th European Stainless Steel. Science and Market Congress. Sevilla, 27-30 September 2005

Chair of the Scientific Committee: 5th European Stainless Steel. Science and Market Congress. Sevilla, 27-30 September 2005

Organizing Committee: X Congreso Nacional de Tratamientos Térmicos y de Superficie, X TRATERMAT. Sevilla, 19-20 October 2005

Organizing Committee: III International Sol-Gel Science and Technologies Congress and VI Congreso Nacional de Materiales Sol-Gel, Guanajuato (México), 3-9 September 2006

Organizing Committee: SECAT 2013, Reunión de la Sociedad Española de Catálisis, Sevilla, 26-28 June 2013.

Chair of the Scientific Committee: SECAT 2013, Reunión de la Sociedad Española de Catálisis, Sevilla, 26-28 June 2013.

Co- Chair of the Organizing Committee: 5th International Conference on Structured Catalysts and Reactors, San Sebastián (España) 22-24 June 2016.

Co- Chair of the Scientific Committee: 5th International Conference on Structured Catalysts and Reactors, San Sebastián (España) 22-24 June 2016.