



**CURRICULUM VITAE (CVA)**

**IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.**

**Part A. PERSONAL INFORMATION**

**CV date** 05/12/2021

First name	Rosa María		
Family name	MARTÍN ARANDA		
Gender (*)	FEMALE	Birth date (dd/mm/yyyy)	23/04/1964
Social Security, Passport, ID number	ID: 02856294 Q		
e-mail	rmartin@ccia.uned.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)	<a href="http://orcid.org/0000-0001-5628-8144">http://orcid.org/0000-0001-5628-8144</a> <a href="http://www.researcherid.com/rid/G-5330-2016">http://www.researcherid.com/rid/G-5330-2016</a>		

(\*) Mandatory

**A.1. Current position**

Position	Full Professor / First Vicechancellor UNED/ Vicechancellor of Reserach, Knowledge Transfer and Sci Dissemination		
Initial date	Dec 2011/ Sep 2020/ Dec 2018		
Institution	UNED		
Department/Center	Inorganic Chemistry		
Country	SPAIN	Teleph. number	+34913986009
Key words	Catalysis, sustainable and fine chemistry, solid characterization, environmental impact evaluation, organic synthesis		

**A.2. Previous positions (research activity interruptions, art. 14.2.b))**

Period	Position/Institution/Country/Interruption cause
2017-2018	Coordinator of Studies and Programs, Head of the School of Doctorate, Universidad Internacional Menéndez Pelayo (UIMP) SPAIN
2010-2015	Vice-Chancellor of evaluation procedures, Rectorate, UNED, SPAIN

**A.3. Education**

PhD, Licensed, Graduate	University/Country	Year
Licensed Chemistry	Universidad Autónoma de Madrid	1987
Grade Chemistry	Universidad Autónoma de Madrid	1988
PhD Chemistry	Universidad Autónoma de Madrid, cum laude	1992

**Part B. CV SUMMARY** (max. 5000 characters, including spaces)

Martín-Aranda is FULL PROFESSOR, Fisrt Vicechancellor of UNED, Vicechancellor of Research. She was Vicechancellor of evaluation procedures and Dean of Environmental Sciences, at UNED. She was Coordinator of Studies and Programes at Universidad



Internacional Menéndez Pelayo (UIMP). Her research focuses on UNDERSTANDING STRUCTURE-PERFORMANCE relationships in catalysis for Fine Chemical preparation under sustainable alternative methodologies.

#### **METHODOLOGY:**

A variety of physicochemical techniques have been used (IR, TG-thermal analysis coupled with Mass Spectrometry, ATD, DSC, determination of the textural properties of solids by N<sub>2</sub> or CO<sub>2</sub> adsorption, XRD, UV-visible spectroscopy, Zeta potential measurement, gas chromatography) and others (RAMAN, solid NMR).

#### **COMPLEMENTARY COLLABORATIONS (International)**

1. Prof. J. Cejka, Director of the Department of Synthesis and Catalysis at J. Heyrovsky Institute of Physical Chemistry, (Prague, Czech Republic)
2. Prof. M. Ziolek, Director of the Department of Heterogeneous Catalysis at Chemistry Faculty at Adam Mickiewicz University (Poznan, Poland).
3. Prof. K. Yeung, Universidad de Ciencia y Tecnología de Hong Kong
4. Prof. Sofia Ya Hsuan Liou, Universidad Nacional de Taiwan
5. Prof. IE Wachs, Universidad de Lehigh, PA, USA

#### **SYSTEMS**

30 years of experience in the synthesis and characterization of porous solids and in their applications in the preparation of high added value products. Extensive work on the structure and reactivity of solid catalysts (coals, clays, zeolites, oxides, mesoporous materials) for Fine Chemistry controlling the selectivity, avoiding the formation of toxic byproducts and pollutants.

#### **REACTIONS/SYNTHESSES**

-We explore the preparation, characterization and application of new catalysts and green methodologies of environmentally synthesis of high value products under liquid phase reactions.

-Environmental catalysis: reaction pathway of fine and bulk chemistry reactions; e.g., Knoevenagel condensation, Michael addition, Claisen Schmidt condensation, Friedlander reaction.

#### **INTERNATIONALIZATION AND NETWORKING**

To FOSTER COMPLEMENTARITY IN RESEARCH through international and national collaboration and organizing events to entangle research groups, like the Chezc-Italian-Spanish Conference series (which Martín-Aranda is co-founded); Martín-Arandas' vision is reflected in the constant cooperation and Erasmus student exchange for Master and PhD studies with several universities and companies.

#### **Part C. RELEVANT MERITS** (*sorted by typology*)

##### **C.1. Publications**

Representative publications out of 100 papers and book chapters

<https://www.scopus.com/authid/detail.uri?origin=resultslist&authorId=6701558651>

Rodríguez, P.F., **Martín-Aranda, R.M.**, López Colón, J.L., de Mendoza, J.H.  
Ammonium acetate as a novel buffer for highly selective robust urinary HPLC-ICP-MS arsenic speciation methodology  
Talanta, 2021, 221, 121494

Kao, L.C., Kan, W.C., **Martin-Aranda, R.M.**, Bañares, M.Á., Liou, S.Y.H.  
SiO<sub>2</sub> supported niobium oxides with active acid sites for the catalytic acetalization of glycerol  
Catalysis Today, 2020, 356, pp. 80–87



Chang, R.W., Lin, C.J., Liou, S.Y.H., Guerrero-Pérez, M.O., **Martín Aranda, R.M.**  
Enhanced cyclic CO<sub>2</sub>/N<sub>2</sub> separation performance stability on chemically modified N-  
doped ordered mesoporous carbon  
Catalysis Today, 2020, 356, pp. 88–94

Calvino-Casilda, V., **Martín-Aranda, R.M.**  
Ordered mesoporous molecular sieves as active catalyts for the synthesis of 1,4-  
dihydropyridine derivatives  
Catalysis Today, 2020, 354, pp. 44–50

Wojtaszek-Gurdak, A., Calvino-Casilda, V., Grzesinska, A., **Martin-Aranda, R.M.**, Ziolk, M.  
Impact of Brønsted acid sites in MWW zeolites modified with cesium and amine species  
on Knoevenagel condensation  
Microporous and Mesoporous Materials, 2019, 280, pp. 288–296

Sobczak, I., Calvino-Casilda, V., Wolski, L., **Martin-Aranda, R.M.**, Ziolk, M.  
The role of gold dopant in AP-Nb/MCF and AP-MCF on the Knoevenagel condensation of  
ethyl cyanoacetate with benzaldehyde and 2,4-dichlorobenzaldehyde  
Catalysis Today, 2019, 325, pp. 81–88

Sobczak, I., Calvino-Casilda, V., Wolski, L., **Martin-Aranda, R.M.**, Ziolk, M.  
The role of gold dopant in AP-Nb/MCF and AP-MCF on the Knoevenagel condensation of  
ethyl cyanoacetate with benzaldehyde and 2,4-dichlorobenzaldehyde  
Catalysis Today, 2019, 325, pp. 81–88

### Book Chapters

1. V. Calvino-Casilda, E. Pérez-Mayoral, A. J. López-Peinado and **R. M. Martín-Aranda**.  
In: LATEST RESEARCH IN THE SYNTHESIS OF 1,4-DIHYDROPYRIDINE DERIVATIVES  
UNDER GREENER REACTION CONDITIONS. New Research on Dihydropyridines. Series:  
Chemistry Research and Applications, Nova Science Publishers, Inc. 2016 (ISBN: 978-1-  
63485-604-1).
2. M. Aliofkhazrae (Ed.) Comprehensive Guide for Mesoporous Materials. Volume 1:  
Synthesis and Characterization. E. Pérez-Mayoral, E. Soriano, **R. M. Martín-Aranda**, F. J.  
Maldonado-Hódar In: Mesoporous Catalytic Materials and Fine Chemistry, Nova Science  
Publishers Inc. (New York–USA) Series: Materials Science and Technologies 2015, ISBN:  
978-1-63463-990-3.

### C.2. Projects

- 1.- SISTEMAS CATALITICOS POROSOS EN LA SINTESIS DE HETEROCICLOS  
BIOACTIVOS. ESTUDIO MECANISTICO. Ref: **CTM2014-56668-R**. **IP1: Rosa María  
MARTÍN ARANDA**; **IP2: María Elena Pérez Mayoral**. Start date: 1/01/2015, Due date:  
31/12/2017. Grant: 185.130,00 € and a FPI fellowship.
- 2.- MATERIALES MESOPOROSOS Y QUÍMICA VERDE. SÍNTESIS DE COMPUESTOS  
CON PROPIEDADES TERAPÉUTICAS (FarmaCat). REF: **CTQ2011-27935**. **IP: Rosa María  
MARTÍN ARANDA**; Start date: 01/01/2012, Due date: 31/12/2015. Grant: 72.600 € and a FPI  
fellowship.

Education innovative projects:

3. “Esto me huele a Ciencia”, **FECYT**, (01/2/2017 - 01/2/2018). **IP: Rosa M. Martín Aranda**.  
**Ref: FCT 16-10963**. Grant: 18.000 euros. Grant for the promotion of scientific culture,  
technology and innovation.
4. “Implementación en la metodología Docente de enseñanza a distancia de nuevas  
tecnologías experimentales en el contexto de la Química Verde”, **UNED** (01/12/2015-  
01/12/2016). **IP: Rosa M. Martín Aranda**



5. Proyecto Europeo LECH-e de movilidad virtual and Life long learning. "The lived experience of climate change. Interdisciplinary e-module development and virtual mobility" 2009-2012. ref: **504269-LLP-1-ERASMUS-ECDSP. IP: Rosa M. Martín Aranda**

### **C.3. Contratos, méritos tecnológicos o de transferencia**

SAllab, CEPESA, Soluciones Analíticas Instrumentales S. L., GlaxoSmithKline, Environmental Consulting DRABA, Técnicas Reunidas, S.A

### **C.4. Patentes**

1. M. Á. Martín Luengo, M. Yates Buxcey, M. Milagros Ramos Gómez, E. Sáez Rojo, L. González Gil, A. M. Martínez Serrano, **R.M. Martín Aranda**, J. López Sanz, PROCEDIMIENTO DE OBTENCIÓN DE MATERIALES MULTIFUNCIONALES Y RENOVABLES A PARTIR DEL RECHAZO DE PIPA PROCEDENTE DE LA PRODUCCIÓN DE ACEITE DE GIRASOL, ES237975. Concession date: 18/10/2013.

2. J. López Sanz, E. Pérez Mayoral, **R.M. Martín Aranda** y A. J. López Peinado, PROCEDIMIENTO PARA LA PREPARACIÓN DE QUINOLINAS USANDO MATERIALES MESOPOROSOS HÍBRIDOS COMO CATALIZADORES DEL PROCESO, ES2395109. Concession date: 06/02/2014.

3. E. Pérez Mayoral, **R.M. Martín Aranda** y A. J. López Peinado, PROCEDIMIENTO DE SÍNTESIS DE CUMARINAS CATALIZADA POR SÓLIDOS MESOPOROSOS HÍBRIDOS INORGÁNICO-ORGÁNICO BÁSICOS Y CUMARINAS ASÍ OBTENIDAS, ES2402810, Concession date: 26/05/2015.

4. E. Pérez Mayoral, **R.M. Martín Aranda**, A. J. López Peinado, M. Godino Ojer, F. J. Maldonado Hódar, A. F. Pérez Cadenas, F. Carrasco Marín. Síntesis de quinolinas usando catalizadores basados en aerogeles de carbón dopados con metales de transición. N. de solicitud: N° de solicitud: ES2606724, UNED- UGR, España. Concession date: 08/01/2018.

### **C.5, C.6, C.7...**

**UIMP** Head of International School of Doctorate. Coordinator of Studies and Programs, since 2017-

**UNED** Dean of Environmental Sciences, 2006-2010

**UNED** Deputy Rector, 2010-2015

**ANECA** Expert Panel Member

**Membership:** Real Sociedad Española de Química, Sociedad Española de Catálisis.

**Panel member:** International Advisory Board for CIS Conference since 2006, International Advisory Board for Group Five Symposium since 2003, ABC Catalysis.

**Dissemination of science:** active collaboration with companies related Chemicals & Environment. She is a person convinced of the importance of popularizing science. For more than 20 years actively involved in radio, TV and activities for the dissemination of science and entrepreneurship. Assiduously collaborates with the non profit [www.colarte.org](http://www.colarte.org) for the dissemination of the arts and sciences, having given numerous conferences and developed.

### **BIBLIOMETRICS:**

h-INDEX : h: 30 for 104 papers; de las que 90 son Q1

"**Sexenios**": 5 Last: 2018

**Sexenio of Transference:** 1 Last: 2020