

## Part A. Personal Information

DATE	2024-10-07
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Surname(s)	Martín Romero	
Forename	María Teresa	
Social Security, Passport, ID number		
Sex		
Age		
Researcher codes	WoS Researcher ID (*)	J-9754-2014
	SCOPUS Author ID(*)	6603501836
	Open Researcher and Contributor ID (ORCID)	0000-0002-6008-4993

(\*) At least one of these is mandatory

### A.1. Current position

Post/ Professional Category	Full Professor	
UNESCO Code	2307, 221016	
Key Words	Air-water interface. Langmuir-Blodgett. Self-assembled structures. Molecular organization. Plasmonic nanoparticles.	
Name of the University/Institution	University of Córdoba	
	Department/Centre	Physical Chemistry and Applied Thermodynamics/Science Faculty
	Full Address	Campus Universitario de Rabanales. Edif. M. Curie. 14014-Córdoba
	Email Address	mtmartin@uco.es
	Phone Number	+34 957 21 24 23
Start date	2019-08-03	

### A.2. Education (title, institution, date)

Year	University	Degree	Title
1990	Of Córdoba	First degree	Biology
		Masters (if appropriate)	
1993	Of Córdoba	PhD	Science (Biology)

### A.3. Indicators of Quality in Scientific Production (See the instructions)

Five positive research periods: 1991/96, 1997/2002, 2003/08, 2009/2014 and 2015/2020

Four 4 thesis supervised along the last 10 years, and 1 thesis in developing.

Scientific publications in international journals included in JCR: 90. The 70% of these research articles have been published in journals within the first quartile (Q1).

Total Cites: 1.383. The average citation per article is 16,1. The average citations/year in the last five years is 44,6.

Índice h: 21.

**Part B. Free Summary of CV** (*Max. of 3.500 characters, including spaces*)

Since 1993, my scientific activity has been framed in the area of Physical Chemistry and driven to the preparation and characterization of thin organic or hybrid films both in the air-water interface and in solid supports. The main aim has been focused on the determination of the molecular organization and the relationship with specific properties regarding to potential application in areas of chemistry and biology. Therefore, a research line of the group at which I belong, was established and it has motivated my research career.

Although, the beginning was discrete in results, my integration as a Postdoc of Prof. Dr. D. Mobius in the Max-Planck-Institut für biophysikalische Chemie (Göttingen, Germany), facilitated not only the study in deep of molecular recognition in interactions guest-host of mixed lipid-porphyrin systems, but also the acquisition of skills to select and develop the optimal methods to assemble different molecular systems. The ability to use specific techniques for the characterization of manufactured nanostructured systems, such as reflection spectroscopy or Brewster angle microscopy (BAM), were acquired as well.

Next, in a framework of international collaborations with recognized international research groups led by Prof. Dr. Richardson (UK), Prof. Dr. Brezezinski (Germany), Prof. Dra. Salette (Portugal) Prof. Dr. Goldmann, (France), Dr. Bolink (Valencia), Prof. Dr. Valli (Italy), Dr. Guerrero (Madrid) or Prof. Dra. Rueda (Seville), the potential of different organic systems as optical gas sensors, the determination of molecular structures through Synchrotron, the implementation of the necessary infrastructure to manufacture organic systems with electroluminescent properties of interest, the molecular recognition of membrane-antibiotic phospholipids, -nucleolipids, or the use of various nanoparticle derivatives as a potential nanostructured surface, respectively, have been investigated.

The result of this outstanding research is reflected in the more than 80 works that I have published in international journals both specific and multidisciplinary areas, such as J. Mater. Chem., Langmuir, J. Phys. Chem., PCCP, ChemPhysChem, J. Am. Chem. Soc., or J. Colloid Interface Sci.

**Part C. Relevant accomplishments****C.1. Publications**

**1. 2D self-assembly of o-OPE foldamers for chiroptical barcoding**, I. Lopez-Sicilia, A. M. Ortuno, P. Reine, D. Otero, M. T. Martin-Romero, L. Camacho, L. de Cienfuegos, A. Orte, Angel, J. J. Giner-Casares, D. Miguel, J. M. Cuerva, Journal of Materials Chemistry A, 11, 2591-2599, 2023. IF: 11.9 (24/161, Chemistry, Physical, Q1).

**2. Exploiting hydrogen bonding to direct supramolecular polymerization at the air/water interface**, P. G. Argudo, J. P. Coelho, I. López-Sicilia, A. Guerrero-Martínez, M. T. Martin-Romero, L. Camacho, G. Fernández, J. J. Giner-Casares, ChemNanoMat, 9, e202200448, 2022. IF: 3.8 (78/178, Chemistry Multidisciplinary, Q2; 153/344, Materials Science, Multidisciplinary, Q2)

**3. Amphiphilic polymers for aggregation-induced emission at air/liquid interfaces**, P. G. Argudo, N. Zhang, H. Chen, G. de Miguel, M. T. Martin-Romero, L. Camacho, M.-H. Li, J. J. Giner-Casares, Journal of Colloid and Interface Science, 596, 324-331, 2021. IF: 8.128 (32/162, Chemistry, Physical, Q1).

**4. Folding of cytosine-based nucleolipid monolayer by guanine recognition at the air-water interface**, P. G. Argudo, E. Munoz, J. J. Giner-Casares, M. T. Martin-Romero, L. Camacho, Journal of Colloid and Interface Science, 537, 694-703, 2019. IF: 5.09 (33/147, Chemistry, Physical, Q1).

**5. Surface-Active Fluorinated Quantum Dots for Enhanced Cellular Uptake**, P. G. Argudo, M. Carril, M. T. Martin-Romero, J. J. Giner-Casares, C. Carrillo-Carrion, Chemistry-A European Journal, 25, 195-199, 2019. IF: 5.16 (37/171, Chemistry, Multidisciplinary, Q1)

**6. Unravelling the 2D self-assembly of Fmoc-dipeptides at fluid interfaces**, P. G. Argudo, R. Contreras-Montoya, L. A. de Cienfuegos, J. M. Cuerva, M. Cano, D. Alba-Molina, M. T.

Martin-Romero, L. Camacho, J. J. Giner-Casares, Soft Matter, 14, 9343-9350, 2018. IF: 3.71 (64/285, Materials Science, Multidisciplinary, Q1).

**7. Tailoring a compact and stable Langmuir bi-dimensional PbX-based layered perovskite film at the air–water interface and on solid support**, L. Ariza-Carmona, G. García-Espejo, M. T. Martín-Romero, L. Camacho, J. Colloid and Interface Sci., 498, 194-201, 2017. IF: 4.233 (35/145, Chemistry Physical, Q1).

**8. Mechanosensitive gold colloidal membranes mediated by supramolecular interfacial self-assembly**, J. P. Coelho, M. J. Mayoral, L. Camacho, M. T. Martín-Romero, G. Tardajos, I. López-Montero, E. Sanz, D. Ávila-Brandé, J. J. Giner-Casares, G. Fernández, A. Guerrero-Martínez, J. Am. Chem. Soc., 139, 1120-1128, 2017. IF: 13.858 (10/166, Chemistry Multidisciplinary, Q1).

**9. UV–Vis reflection–absorption spectroscopy at air–liquid interfaces**, C. Rubia-Payá, G. de Miguel, M. T. Martín-Romero, J. J. Giner-Casares, L. Camacho, Adv. in Colloid and Interface Sci., 225, 134-145, 2015. IF: 7.223 (17/144, Chemistry Physical, Q1).

**10. Revisiting the Brewster Angle Microscopy: The relevance of the polar headgroup**, C. Roldán-Carmona, J. J. Giner-Casares, M. Pérez-Morales, M. T. Martín-Romero, L. Camacho, Adv. in Colloid and Interface Sci., 173, 10-22, 2012. IF: 7.223 (17/144, Chemistry Physical, Q1).

## C.2. Research Projects and Grants

**1. Biomineralización en interfases para híbridos plasmónicos** (PID2020-112744GB-I00), granted by Ministerio de Economía y Competitividad, España, 2021/01/01 - 2023/12/31, Main Researcher: Juan José Giner Casares.

**2. Mecanismos de interacción de nanopartículas plasmónicas con biointerfases** (CTQ2017-83961-R), granted by Ministerio de Economía y Competitividad, España, 2017/01/01 - 2019/12/31, Main Researcher: Juan José Giner Casares.

**3. Reconocimiento Molecular en Matrices Nanoestructuradas para el Diseño de Sensores Biológicos** (CTQ2014-57515-C2-2-R), granted by Ministerio de Economía y Competitividad, España, 2015/01/01 - 2017/12/31, Main Researcher: María Teresa Martín Romero.

**4. Desarrollo de nuevas estrategias para la formación de estructuras moleculares Bi-Dimensionales de películas delgadas. Incorporación en dispositivos nanoestructurados (CTQ2010-17481)**, granted by Ministerio de Educación y Ciencia, España, 2011/01/01 - 2013/12/31. Main Researcher: María Teresa Martín Romero.

**5. Influencia de la organización molecular en fenómenos de transferencia eléctrica y de transferencia de energía. Aplicaciones al diseño de dispositivos nanoestructurados. (CTQ2007/64474)**, granted by Ministerio de Educación y Ciencia, España, 2007/12/01 – 2010/11/30. Main Researcher: Luis Camacho Delgado.

## C.3. Contracts

**1. Development of perovskite-based solar cells**, financed by GRAPHELIUM Company, 2017/04/27 - 2018/04/26. Main Researcher: Gustavo de Miguel Rojas.

**2. Exploring the conductive properties of graphene for Optoelectronic Devices**, financed by GRAPHELIUM Company, 2015/12/22 - 2016/12/22. Main Researcher: Gustavo de Miguel Rojas.

## C.5. PhD Co-Advisor

- 1. Ensamblaje de matrices nanoestructuradas en películas de Langmuir**, argued by D. Pablo Gómez Argudo (Julio 2019) and calified: Sobresaliente Cum Laude with International Mention.
- 2. Desarrollo de nuevas estrategias para la formación de estructuras moleculares bi-dimensionales de películas delgadas. Incorporación de polidiacetilenos y perovskitas en monocapas mixtas**, argued by Dña. Luisa Ariza Carmona (November 2015) and calified: Sobresaliente Cum Laude with International Mention.
- 3. Estudio de la agregación de colorantes en películas mixtas ultrafinas**, argued by D. Carlos Rubia Payá (July 2015) and calified: Sobresaliente Cum Laude.
- 4. Organización molecular en películas de Langmuir. Estudios por simulación y aplicación en dispositivos orgánicos electroluminiscentes**, argued by Juan José Giner Casares (March 2011) and calified: Sobresaliente Cum Laude with European Mention and Extraordinary doctorate award.

#### C.6. Other

1. Full Professor Position (2019/08/03).
2. Palma del Rio Award (2017/02/27).
3. Director of SIPI-SCAI, Services for gestion and support of research infrastructures of UCO, 2010/06/19 – 2014/06/06.
4. Subdirector of SIPI-SCAI, Services for gestion and support of research infrastructures of UCO, 2008/12/01 – 2010/06/18).
5. Member of Referee Commission for Project National Calls: CTQ/BQU 2012 y CTQ/BQU 2011, and Ramón y Cajal and Juan de la Cierva programs (2005).
6. Referee of ANEP agency since 2003.

## Instructions

### Important Announcement

Following the Call for Proposals, **ONLY CVS SUBMITTED IN THIS FORMAT WILL BE TAKEN INTO CONSIDERATION. CVs presented in other formats WILL BE DISMISSED with no possibilities for modifications.**

### **GENERAL CONSIDERATIONS**

Following the call it is mandatory to use the following format when filling the document: Font Times New Roman / Arial (minimum size 11), single interlineal space, lateral margins of 2.5 cm and top and bottom margins of 1.5 cm.

Max. length of the whole document (Part A, B and C) cannot exceed four pages.

### **PART A. PERSONAL INFORMATION**

**Researcher ID** is a unique identifier that consists of alphanumeric characters that enable researchers to manage their publication lists, track their times cited counts and h-index, identify potential collaborators and avoid author misidentification. It is hosted by Web of Science.

Access: Web of Science > My Tools > Researcher ID.

**Author ID** is a unique identifier that consists of alphanumeric characters that enable researchers to manage their publication lists, track their times cited counts and h-index, identify potential collaborators and avoid author misidentification. It is assigned automatically by SCOPUS. You can find an author identifier by running a search for that author. It will appear underneath the author details.

Access: SCOPUS > Author Feedback Wizard> Researcher name.

**Open Researcher and Contributor ID (ORCID)** provides a persistent digital identifier that distinguishes the researcher from every other person and, through integration in key research workflows such as manuscript and grant submission, supports automated linkages between you and your professional activities ensuring that your work is recognized.

Access: [www.orcid.org](http://www.orcid.org)

### **A.3. Indicators of Quality in Scientific Production**

Please add information on a) total number of citations, average number of citations during the last five years, b) total number of publications in the first quartile (Q1) and first decile (D1), c) h-index, d) thesis supervised, and e) any other indicators that you may consider relevant.

To calculate these values, use default data collected in the Web of Science or Scopus. When this is not possible, other indicators may be used, specifying the reference database.

### **PART B. FREE SUMMARY OF CV** *(Max. of 3.500 characters, including spaces)*

Describe briefly your scientific career, the main scientific-technical achievements, and the mid-to-long term scientific-technical interests and objectives of your research agenda. Indicate any other aspects that you may consider important to understand your career path.

### **PART C. ACCOMPLISHMENTS** **(Order by typology)**

Given the limitations in number of characters, please mention the most relevant achievements sorted by the typology that best suits your scientific profile. Please be clear and avoid ambiguities.

Use reverse chronological order within each section. Limit your merits over the past 5 years, except for those which have an extraordinary importance for your CV.

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

Include a full review of relevant 5 to 10 publications.

In case of an article, please include authors in order of signature, year of publication, title of the article, name of the journal, volume, start page to end page.

If it's a book or chapter of a book, include its publisher and ISBN also.

If there are many authors, please indicate the total number of signatories and the position of the researcher (total number/ position of researcher) as for example 95/18.

### **C.2. Participation in Research, Development and Innovation Projects**

Indicate the most important projects in which you have participated (maximum 5 to 7 projects), including a) its reference, b) title, c) funding body and call for proposals, d) name of the principal investigator and his/her institution affiliation, e) date of start and end of the project, f) amount of subsidy, and g) your type of participation, e.g.: researcher, principal investigator, European project coordinator, etc..

### **C.3. Participation in Research, Development and Innovation Contracts**

Indicate the most important contracts in which you have participated (maximum 5 to 7 contracts), including a) title, b) company or entity, c) name of principal investigator and his/her institution affiliation, d) date of start and end of the contract, and e) amount of funding.

### **C.4. Patents**

Indicate the most important patents and other intellectual property in which you have collaborated. Give a) the order of signing authors, b) reference, c) title, d) priority countries, e) date, f) holder entity and companies that are exploiting the patents.

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

By sequential numbering (C.5, C.6, C.7 ...) please include any other achievements that you deem necessary, such as for example: direction of works, participation in assessment or advisory tasks, membership of international committees, management of scientific activity, editorial boards, scientific awards, etc.

## **FINAL CONSIDERATIONS**

Please remember that all the submitted achievements must be presented concisely, including dates or periods for each performance.

The short CV aims to facilitate, organize and streamline the evaluation process. The use of the individual researcher identifier facilitates access to the published scientific papers and information on the impact of each of them.

**Remember that only CVs submitted either in this format or in CVN abridged version will be taken into consideration.**