



ELENA PINILLA CIENFUEGOS

Physicist
PhD in Nanoscience &
Nanotechnology

Current professional situation

Juan de la Cierva Postdoc Grant
Senior researcher
12/2017-12/2019

Valencia Nanophotonics Technology
Center

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[Researcher ID: K-9833-2014](https://researcherid.org/rid/K-9833-2014)

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ACADEMIC FORMATION

UNIVERSITAT DE VALÈNCIA

2014

PhD in Nanoscience & Nanotechnology

2009

Master's Degree in Molecular Nanotechnology

UNIVERSIDAD COMPLUTENSE DE MADRID

2004

Degree in Physics



PREVIOUS POSITIONS AND ACTIVITIES

09/2016 - 12/2017

APOSTD Postdoc Grant senior researcher
Postdoctoral senior researcher

01/2015 - 11/2017

Valencia Nanophotonics Technology Center

05/2014 - 12/2016

Postdoctoral junior researcher

2008 - 2014

Prometeo Grant PhD student

Institute of Molecular Science

2005 - 2008

Sales management

Nanotec Electrónica S.L.

2003 - 2005

IT Support

Professional Skills & Tools. BBVA



TEACHING EXPERIENCE

Supervision of theses
and/or projects

Institute of Molecular Science. UV

2 Master's degree final projects

Valencia Nanophotonics Technology Center. UPV

2 Internships

General teaching

Bachelor's Degree in Biomedical Engineering. UPV

Nanotechnology & Bionanotechnology



SCIENTIFIC & TECHNOLOGICAL EXPERIENCE

Scientific & Technical publications

14 peer reviewed scientific articles

Organization of R&D activities

Organized 1 international congress

Scientific societies

DFMC-GEFES & DEDF: member of the Steering Board

Editorial Council

Deputy director of *Revista Española de Física*

Competitive R&D projects **12**

4 Obtained grants

Prizes, mentions & distinctions **2**

Industrial and intellectual property **1**

15 Works submitted to national or international conferences

2 Stays in public R&D centers



OUTREACH & DISSEMINATION ACTIVITIES

Radio & TV programs

Science talks

Popular Science publications





Summary

Dr. Elena Pinilla Cienfuegos (EPC) is currently a postdoctoral researcher (Juan de la Cierva postdoctoral grant- FJCI-2015-27228, and previously Vali+d postdoctoral grant- APOSTD/2016/025) at the Valencia Nanophotonic Technology Center (NTC). Holding a degree in Physics from the Complutense University of Madrid, in 2008 joined the Research Team on Molecular Materials (RTMM) led by Prof. Coronado at the Institute of Molecular Science (ICMol, University of Valencia, UV) to obtain her Master's degree in Molecular Nanotechnology with the best qualification (2009), and to develop her Ph.D. thesis in Nanoscience and Nanotechnology, achieving a summa "Cum Laude" qualification (2014).

EPC started a new experimental research line at RTMM for the study and modification of novel nanomaterials by AFM-STM, which also involved many different topics as synthesis, fabrication and instrumentation. She was one of the researchers responsible for the design and construction of a new laboratory in the ICMol, "The Nanomagnetism Lab", aimed at the surface characterization of nanomaterials with several instruments as high-vacuum AFM-STM, local oxidation nanolithography (LON-AFM), high resolution optical microscopy and variable field low-temperature magnetic force microscopy (LT-MFM). EPC was responsible for all of the mentioned microscopes as well as for the design and development of a new device and methodology for the dry micromechanical exfoliation of graphene and other two-dimensional (2D) materials. This methodology was patented and awarded the 1st prize at Valencia IDEA contest (2013).

The development of a new laboratory, the creation of a new research line as well as the training of new technicians and researchers indicate the independence and proactivity of EPC. During her Ph.D. she also collaborated with several groups of other Universities in Spain, France and The Netherlands, among others. In addition, it is worth mentioning that EPC codirected the Master's degree final project of Garin Escorcia Ariza (2014-2016) and Samuel Mañas Valero (2012-2014), who was awarded the 2nd prize at the "XII Certamen Universitario Arquímedes" for the work mentored by EPC "Hacia una nueva generación de memorias magnéticas ultradensas: detección y manipulación del magnetismo en una sola nanopartícula".

Currently, EPC is developing a new line of research in the NTC devoted to integrate 2D materials (such as graphene) and molecular-based nanomaterials (Spin Crossover nanomaterials) in photonic nanodevices. EPC is also the responsible for two new techniques at the NTC center: Raman-AFM microscopy and scanning near-field optical microscopy (SNOM) and has mentored the internships of two French students.

Since 2010 EPC has authored 14 scientific articles in high impact factor international peer-reviewed scientific journals and participated in several international conferences. Several of them have been published in top ranked journals such as:

Advanced Materials- IF: 17.493 position 2 in the Nanoscience & Nanotechnology category.

ACS Nano- IF: 12.881 position 5 in the Nanoscience & Nanotechnology category.

Advanced Functional Materials- IF: 11.805 position 6 in the Nanoscience & Nanotechnology category.

Nature Communications- IF: 11.470 position 3 in the Multidisciplinary Sciences category.

ACS Photonics - IF: 6.756 position 4 in the Nanoscience & Nanotechnology category.

In January, 2018, EPC organized the *X GEFES Meeting* (<https://gefes2018.org/>) the biennial international meeting of the Condensed Matter Physics Division (DFMC-GEFES) of the *Spanish Royal Society of Physics* (RSEF) (where is a member of the Steering Board). EPC is also a member of the Steering Board of the *División de Enseñanza y Divulgación de la Física* (DEDF-RSEF) and deputy director of the *Revista Española de Física* (<http://revistadefisica.es/index.php/ref>). As a member of the *Grupo Especializado de Mujeres en Física* (GEMF-RSEF) and the *Asociación de Mujeres Investigadoras y Tecnólogas* (AMIT), EPC is actively involved to contribute to the gender balance in Science. EPC is the current vice president of the RSEF Valencian local section.