Jose Manuel DOMINGUEZ VERA
Catedrático Química Inorgánica

Departamento de Química Inorgánica
Facultad de Ciencias
Avenida de Fuente Nueva S/N
Universidad de Granada
Granada E-18071
España

Teléfono: +34 958248097
Correo electrónico: josema@ugr.es

Links:
https://www.ugr.es/~josema/index.html
JCR articles > 100. Book chapters – 2
International patents – 4 (1 transferred to Biosearch Life SA)
h Index – 33 (Google scholar). Total citations – 2900.
ORCID - 0000-0002-1639-744X
Researcher ID - F-9949-2015

Breve historial: I did my PhD in the LCC-CNRS (Toulouse, France) on molecular magnetism, with a pre-doctoral fellowship (1989 to 1993) from the Spanish Ministry of Education and Science. After completing my PhD, I joined the University of Granada (Spain) with a postdoctoral contract, also from the MEC during 1993-1995, and then a second post-doctoral stay of one year in the Laboratory of Crystallographic Studies - CSIC (Granada), working on protein crystal growth and biomineralization.
In 1996 I joined the Department of Inorganic Chemistry of the Universidad de Granada as an Assistant Professor and in 1998 as an Associate Professor.
In this capacity, I started to develop my line of research: preparation of metallic nanoparticles using bioplatforms, especially the protein ferritin. I was a pioneer in the widespread use of this protein for nanoparticle synthesis not only of metal or metal oxides but also of metal coordination compounds, one very innovative aspect of my research. In a few years I was able to create a solid and dynamic research group that has continued to this day.
My scientific career has always been marked by a concern for innovation and tackling increasingly ambitious topics with potential applications in biomedicine. This impetus has led me to new challenges in a new line of research dedicated to the creation of nanostructures obtained by bacterial nanochemistry. We have developed methodologies that have resulted in unique and fascinating nanostructures such as the first living magnet created in a laboratory or the first magneto-optical microorganism. We have patented what we call "artificial magnetic bacteria" which can serve as iron food supplements and as MRI contrast agents in the digestive system. This patent has been marketed and has had much mention in press.

My group BioNanoMet has been continuously funded since its start. I have been PI of 15 projects, national and regional, individual and coordinated, including two international cooperation projects. I have also been PI of 5 contracts with private companies.
I have been a visiting scholar at various foreign research centers: a pre-doctoral fellowship of four years (1989-93) in the LCC-CNRS (Toulouse, France); Short stays of 2 months (1997) in the School of Chemistry-University of Bristol (UK); 1 month (2008) as guest professor in the Department of Chemistry and Biochemistry, BYU (Utah, US); 2 months (2010) as guest professor at the center CREATIS-INSA (Lyon, France) and 2 months (2016) as an Executive Endeavour Fellow at RMIT (Melbourne, Australia).

Docencia:
Grado: BIOQUIMICA
Master: KHEMIA

Investigación:
Líneas de Investigación: Iron Metabolism / Biomaterials based on bacteria

Skin color-specific and spectrally-selective naked-eye dosimetry of UVA, B and C radiations
***Nature Communications* 2018**, 9, 3743. IF_{2017}=12,353.

Bacteria-Carried Iron Oxide Nanoparticles for Treatment of Anemia
***Bioconjugate Chemistry* 2018**, 29, 1785-1791. IF_{2017}=4,485.

Ambient Protection of Few-Layer Black Phosphorus via Sequestration of Reactive Oxygen Species.
***Advanced Materials* 2017**, 29, 1700152. IF_{2016}=19,79.

Electrochromic Polyoxometalate Material as sensor of Bacterial Activity.
***Chemical Communications* 2015**, 51, 10119-10122. IF_{2015}=6,567.

Artificial Magnetic Bacteria: Living Magnets at Room Temperature.
***Advanced Functional Materials* 2014**, 24, 3489-3493. IF_{2014}=11.805.

Magnetic Nanoparticles-Templated Assembly of Protein Subunits: A New Platform for Carbohydrate-Based MRI Nanoprobes.
***Journal of the American Chemical Society* 2011**, 133, 4889-4895. IF_{2011}=10.470.

Comparative Structural and Chemical Studies of Ferritin Cores with Gradual Removal of their Iron Contents.
***Journal of the American Chemical Society* 2008**, 130, 8062-8068. IF_{2008}=8.091