MANUEL RICARDO IBARRA GARCÍA
Born in Baza (Granada, Spain), January 5th 1955
e-mail: ibarra@unizar.es
Web: http://ina.unizar.es/ibarra/

ADDRESS.

- Departamento de Física de la Materia Condensada, Facultad de Ciencias, Universidad de Zaragoza (C/ Pedro Cerbuna, 12, 50009 Zaragoza. Spain). Phone: +34 976 761 215.
- Instituto de Nanociencia y Materiales de Aragón. C/ Mariano Esquillor, s/n, Edificio I+D+i, 50018 Zaragoza, Spain. Phone: +34 976 762 891.

POSITIONS.

- Full Professor at the Condensed Matter Physics Department in the University of Zaragoza since 1995.
- Director of the *Institute of Nanoscience of Aragon* since its creation in 2003. (http://ina.unizar.es)
- Director of the Advanced Microscopy Laboratory (LMA) (ICTS, Singular Scientific Technical Installation) since its creation in 2007. (http://lma.unizar.es/).
- President of the Spanish integrated ICTS Electron Microscopy "Integrated Electronic Microscopy Network" (ELECMI) since 2014. (http://www.elecmi.es/).
- Scientific Director of the Foundation Institute of Nanoscience of Aragon (http://fundacionina.unizar.es) since its creation 2015-2019.
- Group Leader of the Magnetism in Nanostructures group (MAGNA) supported by the Reginal Government.
- **Head of the Magnetism Section of the European Physical Society 2000-2018**.
- Cofounder partner and scientific advisor of NanoScale Biomagnetics, spin-off of the University of Zaragoza, since 2008. www.nbnanoscale.com.
- Cofounder partner and scientific advisor of Nanoimmunotech, S. L., spin-off of the University of Zaragoza and the University of Vigo, since 2009. www.nanoimmunotech.eu.
- Cofounder partner and scientific advisor of Graphene Nanotech, S. L., spin-off of the University of Zaragoza and CSIC, since 2014. http://www.gpnt.es/.
- Fellow at the Institute of Advanced Studies (IAS) of the Hong Kong University of Science and Technology (HKUST) since 2015.
- Co-Director of the HKUST ENVF-INA/LMA Joint Laboratory on Environment
- Member of the Scientific Committee at the Instituto de Magnetismo Aplicado, Laboratorio "Salvador Velayos", Universidad Complutense de Madrid, ADIF, CSIC. Since 2017.
- Member of the Advisory Board in the Institute of Nanoscience and Nanotechnology, University of Porto (Portugal). Since 2018.

ACADEMIC INFORMATION.

- Bachelor's Degree in Physics. University of Granada. 1979.
- PhD in Physics. University of Zaragoza. 1983.
- **Doctor Honoris Causa. AGH University of Science and Technology. Krakow (Poland). 2008**.
- Visiting Fellow of the Institute of Advanced Studies of the Hong Kong University of Science and Technology. 2015 and 2016.

- Academic elected by the Royal Academy of Exact, Physical, Chemical and Natural Sciences of Zaragoza. 2016.

TEACHING AND RESEARCH EXPERIENCE.

- Assistant Professor. University of Granada. 1978-1979.
- Assistant Professor. University of Zaragoza. 1979-1984.
- Associate Professor and full time researcher. University of Zaragoza. 1985-1995.
- Professor and full time researcher of the University of Zaragoza since 1984, and Full Professor since 1995.
- Visiting Professor at several Universities: Southampton (UK), West Virginia (US), AGH University (Krakow), Hong Kong University of Science and Technology (HKUST) (Hong Kong), National University of Singapore (Singapore). Tohoku University (Sendai, Japan)
- Director of the Physics Condensed Matter Department. University of Zaragoza. 1993-1995 and 1997-1999.
- PhD theses supervised: 13
- His teaching activity has been focused on the core subjects related to Physical Sciences (Bachelor's Degree in Physical Sciences): electricity and magnetism, Quantum Physics, Solid State Physics and Magnetism. He also teaches in the Master Degree in Nanostructured Materials for Nanotechnology Applications and the Master in Physics.
- His research activity has been developed in the fields of magnetism and the magnetic properties of nanostructured materials. Along the past few years his research activity is also focused on the application of nanotechnology in biomedicine. Significant contributions in the fields of: Magnetic anisotropy in rare earth intermetallics, colossal magnetoresistance in mixed valent magnetic oxides, giant magnetocaloric effect alloys, magnetic thin films, magnetic and superconductors' nanostructures and magnetic nanoparticles and their application in life sciences.
- **It is worth noticing the explanation of the intrinsic mechanism of the Colossal Magnetoresistance (published in Nature 1997) and the application of magnetic nanoparticles in biomedicine (published in Nano Today 2007) constituted scientific key advances in the area of basic and applied condensed matter physics**.

The MOST RELEVANT SCIENTIFIC PUBLICATIONS.

Coauthor of 467 publications and 17 book chapters. Around 185 belong to the first quartile (Q1), and many of them have an impact factor greater than 5.00, such as Condensed Matter (5), Nano Today (1), Nature Communications (2), Nature Physics (2), Nano Letters (3), ACS Nano (3), Physical Review Letters (9), Advanced Functional Materials (1), Chemistry of Materials (2), Small (1), Biosensors & Bioelectronics (1), Nature Scientific Reports (6), Nanoscale (9), Applied Physics Letters (23). Furthermore, 39 of the publications have been cited more than 100 and 19 more than 200 times, being one of the most cited experimental physicists in Spain.

- Google Scholar: https://scholar.google.es/citations?user=oPQjQqMAAAAJ&hl=es.
  H-index: 79. Citations: almost 24,800.
- Web of Science ResearcherID (Web of Science & Publons): K-1150-2014.
  H-index: 68. 536 documents and 475 publications. Citations: more than 18,000.
- Scopus ID: https://www.scopus.com/authid/detail.uri?authorId=55664785300.
  H-index: 68. Publications: 470. Citations: more than 19.000.

- Orcid code: https://orcid.org/0000-0003-0681-8260. 538 items.

THE MOST RELEVANT/CITED SCIENTIFIC PUBLICATIONS.

Ibarra, M. R.; Algarabel, P. A.; Marquina, C.; Blasco, J.; Garcia, J.: "Large Magnetovolume Effect in Yttrium Doped La-Ca-Mn-O Perovskite".
Physical Review Letters, 75 (19), 3541-3544. 1995.
DOI: 10.1103/PhysRevLett.75.3541. FI (1997): 7.411.

De Teresa, J. M.; Ibarra, M. R.; Algarabel, P. A.; Ritter, C.; Marquina, C.; Blasco, J.; Garcia, J.; de Moral, A.; Arnold, Z.: "Evidence for magnetic polarons in the magnetoresistive perovskites".
Nature, 386 (6622), 256-259. 1997.
DOI: 10.1038/386256a0. FI: 41.456.

Morellón, L.; Algarabel, P. A.; Ibarra, M. R.; Blasco, J.; García-Landa, B.; Arnold, Z.; Albertini, F.: "Magnetic-field-induced structural phase transition in Gd5(Si1.8Ge2.2)".
Physical Review B, 58, 14721-14724. 1998.
DOI: 10.1103/PhysRevB.58.R14721. FI: 3.564.

Arruebo, M.; Fernández-Pacheco, R.; Ibarra, M. R.; Santamaría, J.
"Magnetic nanoparticles for drug delivery".
Nano Today, 2 (3), 22-32. 2007.
DOI: 10.1016/S1748-0132(07)70084-1. FI: 19.202.

Guillamón, I.; Suderow, H.; Fernández-Pacheco, A.; Sesé, J.; Córdoba, R.; De Teresa, J. M.; Ibarra, M. R.; Vieira, S.: "Direct observation of melting in a two-dimensional superconducting vortex lattice"
Nature Physics, 5 (9), 651-655. 2009.
DOI: 10.1038/nphys1368. FI: 20.603.

Serrano-Ramón, L.; Córdoba, R.; Rodríguez, L. A.; Magén, C.; Snoeck, E.; Gatel, C.; Serrano, I.; Ibarra, M. R.; de Teresa, J. M.: "Ultrasmall Functional Ferromagnetic Nanostructures Grown by Focused Electron-Beam-Induced Deposition",
ACS Nano, 5 (10), 7781-7787. 2011.
DOI: 10.1021/nn201517r. FI: 12.881.

Arenal, R.; De Matteis, L.; Custardoy, L.; Mayoral, A.; Tence, M.; Grazu, V.; De La Fuente, J. M.; Marquina, C.; Ibarra, M. R.: "Spatially-Resolved EELS Analysis of Antibody Distribution on Bio-Functionalized Magnetic Nanoparticles",
ACS Nano, 7 (5), 4006-4013. 2013.
DOI: 10.1021/nn3060281. FI: 12.881.

Marín, L.; Morellón, L.; Algarabel, P. A.; Rodríguez, L. A.; Magén, C.; de Teresa, J. M.; Ibarra, M. R.: "Enhanced Magnetotransport in Nanopatterned Manganite Nanowires"
Nano Letters, 14, 423-428. 2014.
DOI: 10.1021/nl402911w. FI (2013): 13.592.

Guillamon, I.; Córdoba, R.; Sesé, J.; De Teresa, J. M.; Ibarra, M. R.; Vieira, S.; Suderow, H. "Enhancement of long-range correlations in a 2D vortex lattice by an incommensurate 1D disorder potential".
Nature Physics 10, 851–856. 2014.
DOI: 10.1038/nphys3132. FI (2013): 20.603.

Marín, L.; Rodríguez, L. A.; Magén, C.; Snoeck, E.; Arras, R.; Lucas, I.; Morellón, L.; Algarabel, P. A.; de Teresa, J. M.; Ibarra, M. R.: "Observation of the Strain Induced Magnetic Phase Segregation in Manganite Thin Films".
Nano Letters, 15 (1), 492-497. 2015.
DOI: 10.1021/nl503834b. FI (2013): 13.592.

M.C. Martínez-Velarte, B. Kretz, M. Moro-Lagares, M.H. Aguirre, T.M. Riedemann, Th.A. Lograsso, L. Morellón, M.R. Ibarra, A. García-Lekue, D. Serrate.
"Chemical disorder in topological insulators: A route to magnetism tolerant topological surface states".
Nano Letters, article ASAP. Published 13 June 2017. DOI: 10.1021/acs.nanolett.7b00311. Factor de impacto: 13'779. Q1.

M.P. Calatayud, E. Soler, T.E. Torres, E. Campos-González, C. Junquera, M.R. Ibarra, G. Goya.
"Cell damage produced by magnetic fluid hyperthermia on microglial BV2 cells".
Nature Scientific Reports, 2017; 7: 8627. Published online 2017 Aug 17. DOI: 10.1038/s41598-017-09059-7. Q1.

F.Fabris, E.Lima, E.DeBiasi, H.Troiani ,M.Vásquez , T.Torres, R.Fernández Pacheco, M.R.Ibarra, G.Goya, T.Zysler , E.Winkler
"Controlling the dominant magnetic relaxation mechanisms for magnetic hyperthermia in
bimagnetic core-shell nanoparticles."
Nanoscale. The Royal Society of Chemistry 2019
DOI: 10.1039/c8nr07834c.

T.E. Torres, E. Lima Jr., M.P. Calatayud, B. Sanz, A. Ibarra, R. Fernández-Pacheco, A. Mayoral, C. Marquina, M.R. Ibarra, and G.F. Goya.
"The relevance of Brownian relaxation as power absorption mechanism in Magnetic Hyperthermia."
Nature Scientific Reports, in press 2019.

María Moro-Lagares, Richard Koryt´ar, Marten Piantek, Roberto Robles, Nicol´as Lorente, Jose I. Pascual, M. Ricardo Ibarra, and David Serrate.
"Real space manifestations of coherent screening in atomic scale Kondo lattices"
Nature Communications (to appear 2019).

R. Córdoba, P. Orús, Željko L. Jelić, J. Sesé, M.R. Ibarra, I. Guillamón, S. Vieira, J.J. Palacios, H. Suderow, M.V. Milosević, J.M. de Teresa.
"Long-range vortex transfer in superconducting nanowires".
Nature Scientific Reports, Volume 9, Article number: 12386 (2019). Published online: August 2019. Q1.DOI: 10.1038/s41598-019-48887-7.

Sanz, B., Cabreira-Gomes, R., Torres, T.E., ...Ibarra, M.R., Goya, G.F.
Low-Dimensional Assemblies of Magnetic $MnFe_2O_4$Nanoparticles and Direct in Vitro Measurements of Enhanced Heating Driven by Dipolar Interactions: Implications for Magnetic Hyperthermia
ACS Applied Nano Materials, 2020, 3(9), pp. 8719–8731

Muzzi, B., Albino, M., Petrecca, M., ...Ibarra, M.R., Sangregorio, C.
3d Metal Doping of Core@Shell Wüstite@ferrite Nanoparticles as a Promising Route toward Room Temperature Exchange Bias Magnets
Small, 2022, 18(16), 2107426

CONFERENCES & LECTURES (ACADEMIC PRESENTATIONS IN CONGRESSES, WORKSHOPS…).

He has been invited to give conferences in more than 170 congresses, symposia, and workshops; it can be underlined: plenary talks in international (20) and national (5) conferences, Keynote speaker (19) and invited talks in international (33) and national (7) conferences, and Chairmen sessions in many relevant and prestigious Conferences as ICM, MMM, EPS-CMD.

It is worth mentioning the following recent plenary and invited talks conferences: The EMN (Energy Materials Nanotechnology) East Meeting 2013 in Beijing (China); 12th Inter-American Microscopy Congress (CIASEM 2013) in Cartagena de Indias (Colombia); The Spintronics Workshop, organized by the Foundation Advanced Technology Institute in Tokyo (Japan) 2014; 29th Annual Meeting of the European Society for Hyperthermia Oncology ESHO 2014 (Torino), the 14th International Conference on Electrorheological Fluids and Magnetorheological Suspensions (ERMR 2014) in Granada (Spain); 3rd International Conference on Nanoscience, Nanotechnology and Nanobiotechnology; Brasilia (Brazil) 2015, 11th International Conference on Physics of Advanced Materials; ICPAM-11 (Cluj-Napoca, Romania) 2016, ROCAM 2017 (Bucarest, Romania); workshop “Spin, charge and energy transport in novel materials” (Hvar, Croatia, 2017); NanosMat Asia, Hong Kong, Dec. 4th-7th 2017.

Furthermore, he has given lectures at 17 summer courses of the University of Zaragoza and the Menéndez Pelayo International University, and seminars in several international centres such as the Tohoku University (Sendai) and the Advanced Science Research Center (ASRC) Japan Atomic Energy Agency (JAEA) (Tokai) –both in Japan-, or The Hong Kong University of Science and Technology, as well as in different Spanish Universities.

RESEARCH PROJECTS AS MAIN RESEARCHER (most relevant in recent years).

He has coordinated 33 national and international R&D projects of infrastructures and research in the field of magnetism and nanotechnology and its applications, with an overall financial support of €20,000,000. In general, he has participated in more than 50 projects. International projects: 23 (7 funded by the European Commission, Framework Program VI-VII; 2 by NanoSci-E+Eranet; 14 from multinational agreements). National projects 28 ; 21 funded by CICYT, FECYT, DGCYT; and 7 coordinated with other Institutions and two of them in very competitive calls: in the frame of the strategic action in Nanoscience (NAN2004-09270-C03) and in the CONSOLIDER program (CSD2006-12) “Nanotechnologies in nanobiomedicine”, which grouped 10 different institutions (4.500 k€).
He has the copyright of 11 patents, 2 of them WO, 1 PCT and 2 in exploitation.

Recent years projects:

- Title: 'Train^2 Trans-Pyrenees Action on Advanced Infrastructures for Nanoscience and Nanotechnologies'. Funded by the European Union, Interreg IV B SUDOE. TRAIN2-SOE2/P1/E-280. Duration: 2011 – 2012. Budget: €2,342,558.
- Title: 'Nanociencia y nuevos materiales para desafíos medioambientales'. Funded by the MINECO, National R&D Internationalisation Programme, International Projects Subprogramme, Spain-Japan International Bilateral Project. PRI-PIBJP-2011-0794. Duration: 2011 – 2014. Budget: €158,000.
- Title: 'Thermo-Spintronic: High performance energy by the interplay between thermoelectricity and spin Seebeck effect'. Funded by the European Commission. PUI/2012-053. Duration: 2012 – 2016. Budget: €100,000.
- Title: 'ESTEEM2. Enabling Science and Technology through European Electron Microscopy'. Funded by the European Union, FP7 on Research Infrastructures. Duration: 2012 – 2016. Budget (overall): €7,486,016; Budget (INA): €370,905.60.
- Title: 'ESTEEM3. Enabling Science and Technology through European Electron Microscopy'. Funded by the European Union, RIA program, Infraia-01-2018-2019 project nº 823817. Duration: 2018 – 2022. Budget (overall): €10,000,000; Budget (UNIZAR): €444,680

TECHNOLOGY TRANSFER.

- Managing partner and scientific consultant of three spin-off companies:
  - NanoScale Biomagnetics, spin off of the University of Zaragoza. http://www.nbnanoscale.com.
  - Nanoimmunotech, spin off of the University of Zaragoza and University of Vigo. www.nanoimmunotech.eu.
  - Graphene Nanotech, EBT linked to the University of Zaragoza and CSIC since 2014. http://www.gpnt.es.

- He has the copyright of 11 patents, 3 of them WO, 1 PCT and 2 in exploitation.

- NanoScale Biomagnetics, spin off of the University of Zaragoza. http://www.nbnanoscale.com. It is a technology based company dedicated to the production of scientific and biomedical instruments for **magnetic hyperthermia** and other experiments based on **magnetic heating of nanostructured materials.** Formed in 2008 as a Spin Off Company coming from the Institute of Nanoscience of Aragon at the University of Zaragoza, nB enters the market in 2010 as the best resource for researches and technology centers to develop specific or custom-made equipment.

- Nanoimmunotech, spin off of the University of Zaragoza and University of Vigo. www.nanoimmunotech.eu. Nanoimmunotech is born from the cooperation of the Biomedical Research Center (CINBIO) of Vigo and the Nanoscience Institute of Aragón (INA) within a CONSOLIDER project called NANOBIOMED.

- Graphene Nanotech, EBT linked to the University of Zaragoza and CSIC since 2014. http://www.gpnt.es. It is s a technology-based company that was established on March 2014 to investigate, produce and distribute high-quality **epitaxial graphene** grown on Silicon Carbide (SiC) substrates.

PhD THESES ADVISOR (in recent years).

Over his carrier he has supervised outstanding PhD students: Prof. Jose M. de Teresa, Prof. Luis Morellón, Prof. Clara Marquina, Dr. Amalio Fernández-Pacheco (Lecturer at Cambridge University).

Recently:

Title:	Biomedical applications of magnetic nanoparticles: magnetic hyperthermia in dendritic cells and magnetofection on brain cells
PhD Student:	Laura Asín Pardo
University:	Zaragoza
Faculty:	Ciencias
Year:	2012

Title:	Cobalt nanostructures grown by focused electron beam induced deposition for spintronic applications
PhD Student:	Luis Enrique Serrano Ramón
University:	Zaragoza
Faculty:	Ciencias
Year:	2014

Title:	Electronic and thermal transport of bismuth-based compounds: Relevance of the surface states.
PhD Student:	Mari Carmen Martínez Velarte.
University:	Zaragoza. Faculty: Sciences.
Year:	2016

Title:	Spin Seebeck effect in magnetite nanostructures.
PhD Student:	Alberto Anadón Barcelona
University:	Zaragoza
Faculty:	Ciencias
Year:	2017

Title:	Core/Shell iron carbon based nanoparticles for biomedical applications
PhD Student:	Adán Mateu
University:	Zaragoza
Faculty:	Ciencias
Year:	2022

Title:	Magnetic nanoparticles for magnetic hyperthermia.
PhD Student:	Ana Carolina Maldonado

University: Zaragoza
Faculty: Ciencias
Year: 2023 (in progress)

PARTICIPATION IN SCIENTIFIC COMMITTEES.

Head of the Magnetism Section of the European Physical Society 2000-18, he has participated in more than 30 scientific committees. The most relevant ones are:

- 19th International Conference on Magnetism ICM2012, Busan (Korea), 2012.
- 25th Conference of the Condensed Matter Division of the EPS (CMD25), Paris (France), 2014.
- He has also been the coordinator of the Symposium "Medical, biomedical, biomagnetic and biotechnology applications" in JEMS 2013 Joint European Magnetic Symposia, Rhodes (Greece), 2013.
- The Symposium "Biological Application of Magnetic Nanoparticles" in the EUROMAT 2013 European Congress and Exhibition on Advanced Materials and Processes, Seville (Spain), 2013.
- The Topic 5, "Magnetic Materials and Technologies for: energy, information & life" in the 20th International Conference on Magnetism, in 2015.
- Member of the scientific committee in the Institute of Applied Magnetism, Laboratory "Salvador Velayos", Universidad Complutense de Madrid, ADIF, CSIC. Since 2017.
- Member of the General Council of European Magnetism Association (EMA). 2017.
- Member of the scientific committee of the Second meeting of Working Group 3 of the COST Action "European Network of Multidisciplinary Research and Translation of Autophagy Knowledge", Madrid, March 23rd-24th 2017. Chairman of Session 3: Biotechnological applications: nanotechnology, biofuel and bioproducts from plants and algae".
- Member of the Advisory Committee of the 21st International Conference on Magnetism, ICM2018. San Francisco (Estados Unidos).
- Member of the Program Committee JEMS 2020 Joint European Magnetic Symposia. Lisboa (Portugal) 2020.

AWARDS AND DISTINCTIONS (in recent years).

In the last years, he has been awarded with more than 10 prizes in academic and scientific research. Doctor Honoris Causa. AGH University. Krakow (Polonia). 2008. It is worth mentioning the Award 'Aragón Investiga' 2009 for Research Excellence; the Spanish National Research Council (CSIC) tribute to the researchers who were awarded during the 2009-2010 academic year for their outstanding work in research and for their scientific excellence; the Plaque of Honour AEC-2014, awarded by the Spanish Scientists Association in November 2014; Institute of Nanoscience of Aragon: Award 'Aragoneses del Año' in the Science and Technology category, granted by El Periódico de Aragón, 2014; Academic elected by the Royal Academy of Exact, Physical, Chemical and Natural Sciences of Zaragoza, 2016."Salvador Velayos" award of the Sanish Magnetism National Association (2023)

Remarkable secondment stays in last years.

Institution: Physics Department, Tohoku University
Location: Sendai Country: Japan
Duration: 1 month Year: 2016
Distinguished speaker and Visiting Professor. Degree of Spintronics.

Institution: Institute of Advanced Studies (IAS), Hong Kong University of Science and Technology
Location: Hong Kong Country: China
Duration: 5 months (overall) Years: 2015, 2016, 2017,2018, 2019
Visiting Professor and Visiting Fellow: Talks and seminars.

Institution: University of science and Technology AGH
Location: Krakow Country: Poland
Duration: 3 months Years: 2015, 2016, 2017,2018, 2019
Visiting Professor. Courses and seminar

Institution: University of Granada
Location: Granada Country: Spain
Duration: 2 months Years: 2019-2020
Visiting Scholar: Research and seminar

POSITIVE ASSESSMENT OF HIS TEACHING ACTIVITY.

7 five-year terms (the last one on 2013).

POSITIVE ASSESSMENT OF HIS RESEARCH ACTIVITY.

7 six-year terms: 01/01/1990, 01/01/1991, 01/01/1998, 01/01/2003, 01/01/2009, 01/01/2015.

OTHER MERITS.

His teaching activity has been related to core subjects in the Degree of Physics: electricity and magnetism, quantum physics and solid state physics. He also gives lessons in several Masters. His research activity has been developed in the field of magnetism and colossal and nanostructured magnetic materials.

TEACHING MATERIAL AND TEACHING PUBLICATIONS.

Distribution of much teaching material in the “anillo digital", highliting the teaching publication: Ibarra, M. R.: “Nanotecnología” em el libro de J. A. Puértolas Ráfales, R. Ríos Jordana, M. Castro Corella, J. M. Casals Bustos (eds.), *Tecnología de superficies en materiales*, Síntesis, Madrid, 2010 (Editor Prof. Puértolas Ráfales).

MOST RELEVANT PROJECTS OF EDUCATIONAL INNOVATION.

Project title:	Actividades didácticas en centros educativos sobre nanociencia
Main researcher:	M. R. Ibarra
Funder:	Fundación Española para la Ciencia y la Tecnología. FCT-10-904
Budget:	€20,000
Duration:	2010 – 2011

Project title:	Audiovisuales científicos
Main researcher:	Universidad de Zaragoza
Funder:	Fundación Española para la Ciencia y la Tecnología. FCT-14-9143
Budget:	€20,000
Duration:	2014 – 2015

Project title:	Scientific audiovisuals
Main researcher:	M.R. Ibarra
Financing entity:	Spanish Foundation for Science and Technology. FCT-14-9143
Budget:	€20,000
Duration:	2014-2015

Project title:	El rescate del Titán
Main researcher:	M.R. Ibarra
Financing entity:	Spanish Foundation for Science and Technology. FCT-17-12175
Budget:	€20,000
Duration:	2018

Project title:	FEnanoMENOS III Edición
Main researcher:	M.R. Ibarra
Financing entity:	Spanish Foundation for Science and Technology. FCT-17-12307
Budget:	€6,600
Duration:	2018
