Curriculum Vitae

Mª Pilar Marín Palacios

April 2024

https://orcid.org/0000-0003-1068-6934

Surname: Marín Palacios First Name: Mª Pilar
ID: 50717597K Birth Date : 15-7-1966 Gender: Mujer

Current position

Institution: Universidad Complutense de Madrid
Faculty, School or Institute: Facultad de Físicas/ Instituto de Magnetismo Aplicado
Departament/Center: Departamento de Física de Materiales
Address: Ciudad Universitaria, Plaza Ciencias, 1, 28040 Madrid/
IMA. Nacional VI km 22,5 28230 Las Rozas Madrid

Telephone number (prefix, number and extension): +34 91 6363105
E-mail: mpmarin@fis.ucm.es

Speciality (UNESCO code): 2210.29/ 2210.29.17/
Professional Category: Full Professor Initial date: 12/01/2021
Director Instituto de Magnetismo Aplicado Initial date: 01/10/2017

Administrative Situation
x On currently ☐ Hired ☐ Interim ☐ Scholar
☐ Others Specify:

Dedication Full time x
Part-time ☐

Researh lines

Short description, by means of keywords, the specializacion and the current lines of research.

Solid State Physics, magnetic materials, applications, nanocrystals, nanopartícles, Exchange interaction, ferromagnetic resonance, biosensors, electromagnetic radiation attenuators, spin-off Companies.

Academy Training

High education	Center	Date
Bachelor of Science in Physics	Faculty of Physics (Universidad Complutense de Madrid)	1989

Doctorate	Center	Date
PhD in Physical Sciences	Faculty of Physics (Universidad Complutense de Madrid)	1995

Previus positions

Positions	Institution	Date
Scholarship holder Pre-doctoral (Proyecto BRITE EURAM BREU-0150-M, MAT-90 1316-CE)	Spanish National Research Council	1/1/1991-31/12/1992
Scholarship holder Pre-doctoral (FPI PN92 50717597)	Spanish National Research Council	1/1/1993-31/12/1996
Scholarship holder Postdoctoral (CAM 06M/020/96)	Instituto de Magnetismo Aplicado (Universidad Complutense de Madrid)	1/1/1997-31/10/1998

Scholarship holder Beca Postdoctoral Comunidad de Madrid (Orden 2046/1998)	Instituto de Magnetismo Aplicado (Universidad Complutense de Madrid)	1/11/1998-31/10/2001
Contract “Ramón y Cajal”	Instituto de Magnetismo Aplicado (Universidad Complutense de Madrid)	15/11/2001-15/11/2006
Hired Professor Doctor	Departamento de Física de Materiales (Universidad Complutense de Madrid)	15/12/2006-1/12/2009
Assistant Professor	Departamento de Física de Materiales (Universidad Complutense de Madrid)	1/12/2009-
Academic Secretary	Departamento de Física de Materiales (Universidad Complutense de Madrid)	1/07/2014-30/09/2017

Languages (R = regular, B = right, C = correct)

Lenguage	Speech	Read	Write
English	C	C	C
French	R	B	R
Italian	R	B	R

University Lecturing

1.Lecturing Career

Lecturing from 1996-1997 in Universidad Complutense de Madrid.

Faculty of Physics

School year: 1996-1997
Title: BACHELOR OF PHYSICS
Subject: EXPERIMENTAL TECHNIQUES LABORATORYII
Activity: Practice lessons
Hours taught: 20 hours

School year: 2005-2006
Title: 33203-BACHELOR OF PHYSICS
Subject: MATERIAL MAGNETICS
Activity: Practice lessons
Hours taught: 20 hours

School year: 2005-2006
Title: DOCTORATE PROGRAM PHYSICS OF MATERIALS (QUALITY MENTION)
Subject: TECHNIQUES FOR THE PREPARATION AND CHARACTERIZATION OF MAGNETIC MATERIALS
Activity: Theoretical lesson
Hours taught: 20 hours

School year: 2005-2006
Title: 33203-BACHELOR OF PHYSICS (PLAN 2003)
Subject: MATERIAL MAGNETICS (5º YEAR)
Activity: Practice lessons
Hours taught: 20 hours

School year: 2006-2007
Title: 33203-BACHELOR OF PHYSICS (PLAN 2003)
Subject: MATERIAL MAGNETICS (5º YEAR)
Activity: Practice lessons
Hours taught: 20 hours

School year: 2006-2007
Title: 33203-BACHELOR OF PHYSICS (PLAN 2003)
Subject: FUNDAMENTALS OF PHYSICS (FIELDS AND WAVES) 1ER YEAR
Activity: Theoretical lessons
Hours taught: 8 hours

School year: 2006-2007
Title: 33203-BACHELOR OF PHYSICS (PLAN 2003)
Subject: MECHANICAL PROPERTIES OF MATERIALS (5º YEAR)
Activity: Practice lessons
Hours taught: 40 hours

School year: 2007-2008
Title: 33203-BACHELOR OF PHYSICS (PLAN 2003)
Subject: MECHANICAL PROPERTIES OF MATERIALS (5º YEAR)
Activity: Theoretical lessons
Hours taught: 23 hours

School year: 2007-2008
Title: MASTER ERASMUS MUNDUS IN NUCLEAR FUSION AND ENGINEERING PHYSICS
Subject: MATERIALS PHYSICS
Activity: Theoretical lessons
Hours taught: 45 hours

School year: 2007-2008
Title: 33203-BACHELOR OF PHYSICS (PLAN 2003)
Subject: MATERIAL MAGNETICS (5º YEAR)
Activity: Practice lessons
Hours taught: 10 hours

School year: 2007-2008
Title: 33203-BACHELOR OF PHYSICS (PLAN 2003)
Subject: MECHANICAL PROPERTIES OF MATERIALS (5º YEAR)
Activity: Practice lessons
Hours taught: 20 hours

School year: 2008-2009
Title: 33203-BACHELOR OF PHYSICS (PLAN 2003)
Subject: MECHANICAL PROPERTIES OF MATERIALS (5º YEAR)
Activity: Practice lessons
Hours taught: 48 hours

School year: 2008-2009
Title: MASTER ERASMUS MUNDUS IN NUCLEAR FUSION AND ENGINEERING PHYSICS
Subject: MATERIALS PHYSICS
Activity: Theoretical lessons
Hours taught: 45 hours

Course: 2009-2010
Title: MÁSTER IN NUCLEAR FUSION SCIENCE AND ENGINEERING PHYSICS
Subject: MATERIALS PHYSICS
Activity: Theoretical and practice lessons (Grup A)
Hours taught: 60.0 hours

School year: 2009-2010
Title/s: 33203 -PHYSICS
Subject: 382 PROPIEDADES MECÁNICAS DE LOS MATERIALES
Activity: Theoretical and practice lessons (Grup A)
Hours taught: 35.0 hours

School year: 2009-2010
Title/s: 34299 - MATERIALS ENGINEER
Subject: 502 ELASTICITY AND RESISTENCE OF MATERIALS
Activity: Theoretical and practice lessons (Grup A)
Hours taught: 60.0 hours

School year: 2010-2011
Title/s 33203 - PHYSICS
Subject: 382 MECHANICAL PROPERTIES OF MATERIALS
Activity: Theoretical and practice lessons (Grup A)
Hours taught: 35.0 hours

School year: 2010-2011
Title/s: 33203 - PHYSICS
Subject: 382 MECHANICAL PROPERTIES OF MATERIALS

Activity: Laboratory (Grup PMEC1)
Hours taught: 10.0 hours

School year: 2010-2011
Title/s: 33203 - PHYSICS
Subject: 382 MECHANICAL PROPERTIES OF MATERIALS
Activity: Laboratory (Grup PMEC2)
Hours taught: 10.0 hours

School year: 2011-2012
Title/s: 33203 - PHYSICS
Subject: 345 SOLID STATE PHYSICS
Activity: Theoretical and/or parctice classes (Grup D)
Hours taught: 50.0 hours

School year: 2011-2012
Title/s: 34299 - MATERIALS ENGINEER
Subject: 613 MECHANICAL BEHAVIOR OF MATERIALS
Activity: Theoretical and/or parctice classes (Grup A)
Hours taught: 28.7 hours

School year: 2012-2013
Title/s: PHYSICS DEGREE
Subject: LABORATORY PRACTICE II
Activity: Laboratory Practice - Part IV (Electricity and Magnetism) (Laboratory 5)
Hours taught: 12.0 hours

School year: 2012-2013
Title/s: 33203 - PHYSICS
Subject: 345 SOLID STATE PHYSICS
Activity: Theoretical and/or parctice classes (Residual Grup)
Hours taught: 50.0 hours

School year: 2012-2013
Title/s: 34299 - MATERIALS ENGINEER
Subject: 613 MECHANICAL BEHAVIOR OF MATERIALS
Activity: Theoretical and/or parctice classes (Grup A)
Hours taught: 28.7 hours

School year: 2013-2014
Title/s: PHYSICS DEGREE
Subject: SOLID STATE PHYSICS
Activity: Theoretical and practice lessons (Grup C)
Hours taught: 20.0 hours

School year: 2013-2014
Title/s: PHYSICS DEGREE
Subject: LABORATORY PRACTICE II
Activity: Laboratory Practice - Part IV (Electricity and Magnetism) (Laboratory 11)
Hours taught: 12.0 hours

School year: 2013-2014
Title/s: 34299 - MATERIALS ENGINEER
Subject: 613 MECHANICAL BEHAVIOR OF MATERIALS
Activity: Theoretical and practice lessons (Grup A)
Hours taught: 35.0 hours

School year: 2014-2015
Title/s: PHYSICS DEGREE
Subject: SOLID STATE PHYSICS
Activity: Theoretical and practice lessons (Grup C)
Hours taught: 20.0 hours

School year: 2014-2015
Title/s: 33203 - PHYSICS
Subject: 345 SOLID STATE PHYSICS Activity: Mentoring (Residual Grup)
Hours taught: 10.0 hours

School year: 2015-2016
Title/s: PHYSICS DEGREE
Subject: PROYECT DEGREE (PHYSICS)
Activity: Monitoring and evaluation of works (Departament of Matherial Physic - 2)
Hours taught: 15.0 hours

School year: 2016-2017
Title/s: PHYSICS DEGREE
Subject: ELECTROMAGNETISM II
Activity: Theoretical and practice lessons (Grup F - Physics Degree)
Hours taught: 60.0 hours

School year: 2016-2017
Title/s: MASTER IN PLASMA PHYSICS AND NUCLEAR FUSION (ERASMUS MUNDUS) / EUROPEAN MASTER IN NUCLEAR FUSION SCIENCE AND ENGINEERING PHYSICS
Subject: MATERIALS PHYSICS
Activity: Theoretical and practice lessons (Grup A)
Hours taught: 6.0 hours

School year: 2016-2017
Title/s: PHYSICS DEGREE
Subject: PROYECT DEGREE (PHYSICS)
Activity: Monitoring and evaluation of works (Departament of Matherial Physic - 2)
Hours taught: 30.0 hours

School year: 2017-2018
Title/s: PHYSICS DEGREE
Subject: ELECTROMAGNETISM II
Activity: Theoretical and practice lessons (Grup F - Physics Degree)
Hours taught: 54.0 hours

School year: 2017-2018
Title/s: PHYSICS DEGREE
Subject: PHYSICS LABORATORY III
Activity: Laboratory Electromagnetism (Laboratory E11)
Hours taught: 16.0 hours

School year: 2017-2018
Title/s: MATERIALS ENGINEERING DEGREE
Subject: MAGNETIC MATERIALS
Activity: Laboratory Practice (Laboratory 1)
Hours taught: 14.0 hours

School year: 2018-2019
Title/s: PHYSICS DEGREE
Subject: ELECTROMAGNETISM II
Activity: Theoretical and practice lessons (Grup C - Physics Degree)
Hours taught: 54.0 hours

School year: 2018-2019
Title/s: DOUBLE DEGREE MATHS-PHYSICS
Subject: PROYECT DEGREE
Activity: Mentoring and/or Board TFG (Grup A)
Hours taught: 0.6 hours

School year: 2018-2019
Title/s: PHYSICS DEGREE
Subject: PROYECT DEGREE (PHYSICS)
Activity: Monitoring and Evaluation of works (Departament of Materials Physics - 2)
Hours taught: 15.0 hours

School year: 2019-2020
Title/s: PHYSICS DEGREE
Subject: ELECTROMAGNETISM II
Activity: Theoretical and practice lessons (Grup C - Physics Degree)
Hours taught: 54.0 hours

School year: 2019-2020
Title/s: PHYSICS DEGREE
Subject: ELECTROMAGNETISM II
Activity: Theoretical and practice lessons (Grup C - Physics Degree)
Hours taught: 54.0 hours

School year: 2019-2020
Title/s: PHYSICS DEGREE
Subject: BUSINES PRACTICES/MENTORING (PHYSICS)
Activity: Mentor External Practice Curricular (05336828T)
Hours taught: 0.8 hours

School year: 2019-2020
Title/s: PHYSICS DEGREE
Subject: PROYECT DEGREE (PHYSICS)
Activity: Mentoring TFGs (FM-06)
Hours taught: 3.0 hours

School year: 2019-2020
Title/s: PHYSICS DEGREE
Subject: PROYECT DEGREE (PHYSICS)
Activity: Mentoring TFGs (FM-07)
Hours taught: 3.0 hours

School year: 2020-2021
Title/s: PHYSICS DEGREE
Subject: ELECTROMAGNETISM II
Activity: Theoretical and practice lessons (Grup C – Physics Degree)
Hours taught: 54.0 hours

School year: 2020-2021
Title/s: PHYSICS DEGREE
Subject: PHYSICS LABORATORY III
Activity: Laboratory Electromagnetism (Laboratory E12)
Hours taught: 16.0 hours

School year: 2021-2022
Title/s: PHYSICS DEGREE
Subject: ELECTROMAGNETISM II
Activity: Theoretical and practice lessons (Grup C – Phisics Degree)
Hours taught: 54.0 hours

School year: 2021-2022
Title/s: PHYSICS DEGREE
Subject: PHYSICS LABORATORY III
Activity: Laboratory Electromagnetism (Laboratory E12)
Hours taught: 16.0 hours

Chemestry Facultity

School year: 2010-2011
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSICS
Activity: Theoretical and practice lessons (Grup A1)
Hours taught: 30.3 hours

School year: 2011-2012
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSICS
Activity: Theoretical and practice lessons (Grup A1)
Hours taught: 30.3 hours

School year: 2011-2012
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSICS
Activity: Guided mentoring (Grup A1)
Hours taught: 7.0 hours

School year: 2011-2012
Title/s: 38000 – CHEMICAL ENGINEER
Subject: 300 FUNDATION PHISICAL FROM ENGINEER
Activity: Board of final exams (Singel Grup)
Hours taught: 3.5 hours

School year: 2012-2013
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSICS
Activity: Theoretical and practice lessons (Grup A2)
Hours taught: 30.3 hours

School year: 2012-2013
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSICS
Activity: Seminars (Grup A2)
Hours taught: 7.0 hours

School year: 2012-2013
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSICS
Activity: Guided mentoring (Grup A2)
Hours taught: 7.0 hours

School year: 2012-2013
Title/s: 38000 - CHEMICAL ENGINEER
Subject: 300 FUNDATION PHISICAL FROM ENGINEER
Activity: Board of final exams (Single Grup)
Hours taught: 1.3 hours

School year: 2012-2013
Title/s: 38000 - CHEMICAL ENGINEER
Subject: 504 FUNDATION PHISICAL FROM ENGINEER
Activity: Theoretical and practice lessons (Grup B)
Hours taught: 20.0 hours

School year: 2013-2014
Title/s: CHEMISTRY DEGREE
Subject: GENERAL PHYSICS
Activity: Theoretical and practice lessons (Grup B)
Hours taught: 37.3 hours

School year: 2013-2014
Title/s: CHEMISTRY DEGREE
Subject: GENERAL PHYSICS
Activity: Theoretical and practice lessons (Grup D)
Hours taught: 37.3 hours

School year: 2013-2014
Title/s: CHEMISTRY DEGREE
Subject: GENERAL PHYSICS
Activity: Guided mentoring (Grup B)
Hours taught: 9.0 hours

School year: 2013-2014
Title/s: CHEMISTRY DEGREE
Subject: GENERAL PHYSICS
Activity: Guided mentoring (Grup D)
Hours taught: 12.0 hours

School year: 2014-2015
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSICS
Activity: Theoretical and practice lessons (Grup B)
Hours taught: 30.3 hours

School year: 2014-2015
Title/s: CHEMISTRY DEGREE
Subject: GENERAL PHYSICS
Activity: Theoretical and practice lessons (Grup B)
Hours taught: 37.3 hours

School year: 2014-2015
Title/s: CHEMISTRY DEGREE
Subject: GENERAL PHYSICS
Activity: Theoretical and practice lessons (Grup F)
Hours taught: 37.3 hours

School year: 2014-2015
Title/s: CHEMISTRY DEGREE
Subject: GENERAL PHYSICS
Activity: Guided mentoring (Grup B)
Hours taught: 9.0 hours

School year: 2014-2015
Title/s: CHEMISTRY DEGREE
Subject: GENERAL PHYSICS
Activity: Guided mentoring (Grup F)
Hours taught: 12.0 hours

School year: 2015-2016
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSICS
Activity: Theoretical and practice lessons (Grup B)
Hours taught: 30.3 hours

School year: 2015-2016
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSIC
Activity: Seminars (Grup B)
Hours taught: 7.0 hours

School year: 2015-2016
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSIC
Activity: Guided mentoring (Grup B)
Hours taught: 7.0 hours

School year: 2015-2016
Title/s: GRADO EN QUÍMICA
Subject: GENERAL PHYSIC
Activity: Theoretical and practice lessons (Grup B)
Hours taught: 37.3 hours

School year: 2015-2016
Title/s: CHEMICAL DEGREE
Subject: GENERAL PHYSIC
Activity: Guided mentoring (Grup B)
Hours taught: 12.0 hours

School year: 2016-2017
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSIC
Activity: Theoretical and practice lessons (Grup B)
Hours taught: 30.3 hours

School year: 2016-2017
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSIC
Activity: Seminars (Grup B)
Hours taught: 7.0 hours

School year: 2016-2017
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSIC
Activity: Guided mentoring (Grup B)
Hours taught: 7.0 hours

School year: 2017-2018
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSIC
Activity: Theoretical and practice lessons (Grup B)
Hours taught: 30.3 hours

School year: 2017-2018
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSIC
Activity: Seminars (Grup B)
Hours taught: 10.0 hours

School year: 2017-2018
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSIC
Activity: Guided mentoring (Grup B)
Hours taught: 3.5 hours

School year: 2019-2020
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSIC
Activity: Theoretical and practice lessons (Grup B)
Hours taught: 27.5 hours

School year: 2019-2020
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSIC
Activity: Seminars (Grup B)
Hours taught: 10.0 hours

School year: 2019-2020
Title/s: CHEMICAL ENGINEERING DEGREE
Subject: PHYSIC
Activity: Guided mentoring (Grup B)
Hours taught: 3.5 hours

Evaluation of teaching activity (each five years)

Recognized merits for lecturing, as established in Real Decreto 1086/89 de 28 de AUGUST, on remuneration of the University Professorate, modified in Real Decreto 74/2000, de 21 de JANUARY: evaluation of the teaching activity of the teaching staff

Initial date	Final date	Corps/Category
20.12.2006	19.12.2011	PROFESOR TITULAR DE UNIVERSIDAD
20.12.2011	19.12.2016	PROFESOR TITULAR DE UNIVERSIDAD

Evaluation of University lecturing of Theachig Staff

School year	Subject	Assesment
2007-2008	Mechanical Properties of Materials	POSITIVE
2008-2009	Mechanical Properties of Materials	POSITIVE
2013-2014	Physic	POSITIVE
2015-2016	Physic	VERY POSITIVE
2016-2017	Electromagnetism II	VERY POSITIVE
2018-2019	Electromagnetism II	VERY POSITIVE

2. Dedication full-time or part-time to University

- Post-doctoral scholarship in Proyecto de Investigación de la Comunidad de Madrid (CAM 06M/020/96) en el Instituto de Magnetismo Aplicado de la Universidad Complutense de Madrid. Desde 1-1-1997 to 31-10-1998

- Post-doctoral scholarship of Comunidad de Madrid (CAM 06M/020/96) in Instituto de Magnetismo Aplicado de la Universidad Complutense de Madrid. From 1-1-1997 to 31-10-1998

- Research contract "Ramón y Cajal" full-time with dedication 35 hours per week in Instituto Universitario de Magnetismo Aplicado de la Universidad Complutense de Madrid. From 14-11-2001 to 14-11-2006

- Hired Professor, full-time. Materials Physics Department. Faculty of Physical Sciences. Universidad Complutense de Madrid. From 20-12-2006 to 18.01.2010

- Associate Professor of University in the area "Condensed Matter Physics". Materials Physics Department. Faculty of Physical Sciences. Universidad Complutense de Madrid. From: 19.01.2010 – 11/01/2021

- Full Professor of University in the area "Condensed Matter Physics". Materials Physics Department. Faculty of Physical Sciences. Universidad Complutense de Madrid. From: 12.01.2010 –

3. Supervisor of final degree projects, Dissertations, Master´s thesis, DEAS

1.- Work title: *Influence of chromium on the microstructural and magnetic properties of amorphous alloys rich in Fe*
Proyect Type: Trabajo conducente a obtención de DEA
Thesis Supervisor: Pilar Marín Palacios
Institution: Universidad Complutense de Madrid
Pupil: Miguel López
Obtained qualification: Notable
Defense Date: 31/07/2002

2.- Work title: *Experimental set-up for the manufacture of ferromagnetic nanowires*
Proyect Type: Master Thesis
CoThesis Supervisor: Pilar Marín Palacios / Guillermo Rivero Rodríguez
Institution: Universidad Complutense de Madrid
Pupil: Jaime Sánchez-Barriga
Obtained qualification: Sobresaliente
Defense Date: 30/09/2004

3.- Work title: *Influence of Cobalt on the induction of Anisotropy in Nanocrystalline Alloys*
Proyect Type: Master Thesis
Thesis Supervisor: Pilar Marín Palacios
Institution: Universidad Complutense de Madrid
Ciudad entidad realización: Madrid, Comunidad de Madrid, España
Pupil: Adrian Vlad
Obtained qualification: Sobresaliente
Defense Date: 30/09/2004

4.- Work title: *Development of a magnetoelastic sensor based on a magnetic microwire for biomedical applications*
Proyect Type: Trabajo fin de Master
Thesis Supervisor: Pilar Marín Palacios
Realization Institution: Universidad Complutense de Madrid
Pupil: María Cascajo Castresana
Obtained qualification: Sobresaliente
Defense Date: 08/09/2013

5.- Work title: *Methods of processing materials with magnetic properties and application to the manufacture of a sensor for structural monitoring*
Proyect Type: Master Thesis
Thesis Supervisor: Pilar Marín Palacios
Realization Institution: Universidad Nacional de Educación a Distancia
Pupil: Ana María Aragón Sánchez
Obtained qualification: Sobresaliente
Defense Date: 14/10/2013

6.- Work title: *Control of the magnetic properties of amorphous microwires by controlled nanocrystallization under magnetic field*
Proyect Type: Master Thesis
CoThesis Supervisors: Pilar Marín Palacios / Lucas Pérez García
Realization Institution: Universidad Complutense de Madrid
Pupil: Juan Manuel Gómez Pérez
Obtained qualification: 9.5
Defense Date: 06/07/2016

7.- Work title: *Development of wireless biosensors based on magnetic microwires*.
Proyect Type: Master Thesis
CoThesis Supervisor: Pilar Marín Palacios
Institution: Universidad Complutense de Madrid
Pupil: Jonatan Borges Fernández
Obtained qualification: 9
Defense Date: School year 2017/2018

8.- Work title: *Influence of the microstructure of nanocrystalline magnetic microwires on Giant Magnetoymedance in GHz*
Proyect Type: Master Thesis
CoThesis Supervisor: Pilar Marín Palacios
Institution: Universidad Complutense de Madrid
Pupil: Diego Archilla
Obtained qualification: 8.5
Defense Date: School year 2017 / 2018

9.- Work title: *Electromagnetic response in high frequency of arrays of magnetic microwires*
Proyect Type: Master Thesis
CoThesis Supervisor: Pilar Marín Palacios
Realization Institution: Universidad Complutense de Madrid
Pupil: Alberto Moya Señas
Obtained qualification: 8
Defense Date: School year 2017 / 2018

10.- Work title: *Large-scale graphene production by exfoliation using mechanical grinding*
Proyect Type: Master Thesis
CoThesis Supervisor: Pilar Marín Palacios/Elena Navarro Palma
Institution: Universidad Complutense de Madrid
Pupil: David Rubira Sánchez-Vizcaíno
Obtained qualification: 9
Defense Date: School year 2017 / 2018

11.- Work title: *Measurement of mechanical properties of 3D hydrogels using magnetic microwires*
Proyect Type: Master Thesis
CoThesis Supervisor: Pilar Marín Palacios
Institution: Universidad Complutense de Madrid
Pupil: Maralla Nieto Díez
Obtained qualification: 9
Defense Date: School year 2018 / 2019

12.- Work title: *Obtaining graphene on a large scale by exfoliation by dry and wet mechanical grinding and its application in microwave attenuation*
Proyect Type: Master Thesis
CoThesis Supervisor: Pilar Marín Palacios/ Elena Navarro Palma
Institution: Universidad Complutense de Madrid
Pupil: Álvaro Peña Moreno
Obtained qualification: 8.5
Defense Date: School year 2018/2019

13.- Work title: *Study of magnetoelastic resonance in microwires for possible use as biosensors*
Proyect Type: Master Thesis
CoThesis Supervisor: Pilar Marín Palacios/ Mª Carmen Horrillo
Institution: Universidad Complutense de Madrid
Pupil: César Amando Rodríguez Castañeda
Obtained qualification: 8.5
Defense Date: School year 2019/2020

14.- Title of the work: *Modification, by means of conductive coatings, of the effect of giant magnetoimpedance in microwaves of magnetic microwires*
Type of project: Master's Thesis
Thesis co-supervisor: Pilar Marín Palacios/ Miguel Ángel González/ Arantzazu Mascaraque
Carrying entity: Complutense University of Madrid
Student: Diego Narváez Cadena
Score: 8.8
Defence date: Academic year 2021/2022

15.- Title of the work: *Detection of molecules in ground graphite*
Type of project: Master's Thesis
Thesis co-supervisor: Pilar Marín Palacios/ César González
Carrying entity: Complutense University of Madrid
Student: Daniel Otero Díaz
Score: 9.0
Defence date: Academic year 2021/2022

16.- Title of the work: *Attenuation of electromagnetic waves by graphene obtained by mechanical exfoliation*
Type of project: Master's Thesis
Thesis co-supervisor: Pilar Marín Palacios/ Elena Navarro
Carrying entity: Complutense University of Madrid
Student: Iván Horcajo Peribañez
Score: 8.0
Defence date: Academic year 2021/2022

17.- Title of the work: *Measurement of ferromagnetic resonance in nanowires*
Type of project: Master's Thesis
Thesis co-supervisor: Pilar Marín Palacios/ Lucas Pérez García
Carrying entity: Complutense University of Madrid
Student: Clara Gutiérrez Cuesta
Score: 8.5
Defence date: Academic year 2022/2023

4. Other merits related to teaching activity

- Coordinator Solid State Physics Course
School year 2013-2014/ School year 2014-2015

- Professor of Summer Course "Advanced Microsensors: Materials, Technology and Applications" of the XIX Edition of the Summer University of Teruel (University of Zaragoza) 7-11 July 2003
Class: Magnetic Sensors (2 hours)

- Professor of IBERNAM Summer Schoolb"Universitat D´Estiu URV, edició 2011" Universidad Rovira i Virgili (Tarragona) 27-30 JUNE de 2011
Class: Micro and nanomagnetic sensors (1 hour)

- Professor of 5th European School on Molecular Nanoscience (ESMOLNa 2012) Cuenca (28-31 de October) organized by the University of Valencia
Class: Magnetic Biosensors based on magnetostrictive materials (1 hour)

- Professor of 7th European School on Molecular Nanoscience (ESMOLNa 2014) Gandía (26-31 de October) organized by the University of Valencia
Class: Magnetic microwires as biological sensors (1 hour)

- Director and Professor of course "Magnetic materials and induced currents" for the company Tecatom, S.A. San Sebastián de los Reyes (Madrid) 14-17-28-22 y 24 de November de 2011 (24 hours) (6 students)

- Director and Professor of course “Summer Workshop, Challenges of Basic and Applied Magnetism (IV Course of the Club Español de Magnetismo) held in La Cristalera-Miraflores de la Sierra (2-6 de July 2018) (20 students)
Class: High Frequency Devices (1 hour)

- Responsible of development of Programme 4º ESO – Company in the Instituto de Magnetismo Aplicado (School year 2015 –2016)

- Responsible of Work contract “Trainning Agreement and Quality Commitment” del Programa Erasmus for the research stay within the framework of the development of a Master's Thesis of pupil “Katarzyna Osiak” of the University of Warsaw (Polonia) for the development of research in nanostructured magnetic materials (2.06.2014 – 29.08.2014)

RESEARCH ACTIVITY

Six-Year Research Periods

Research activity

Período	Cuerpo
1991 – 1996	Associate Professor
1997 – 2002	Associate Professor
2003 – 2008	Associate Professor
2009 – 2014	Associate Professor
2015 – 2021	Full Professor

Actividad de transferencia

Período	Cuerpo
2001 – 2011	Associate Professor

1. Scientific Publications, based on their relevance and quality in the field knowledge

1.- A.M. Severino, C. Gómez-Polo, P. Marín and M. Vázquez
Influence of the sample length on the switching process of magnetostrictive amorphous wires
J. Magn Magn. Mat. 103, 117-125, (1992)
Citations:

2.- M. Vázquez, P. Marín, F. Leccabue, B.E. Watts, A. Deriu, D. Negri and G. Boccelli
Phase Transformation and Magnetic Properties of Nanocrystalline $Fe_{73.5}Si_{(22.5x)}B_xCu_1Nb_3$ (x=6, 9) alloys
IEEE Trans. on Magn. 29(6) 2685-2687 (1993)

3.- C. Gómez-Polo, A.O. Olofinajana, M. Vázquez, P. Marín and H. Davies
The Influence of Nanocrystalline Microstructure in the Magnetic Properties of a Wired Shaped Ferromagnetic alloy
IEEE Trans. on Magn. 29(6) 2673-2675 (1993)

4.- M. Vázquez, P. Marín, A.O. Olofinjana and H.A. Davies
Magnetic Hardening of FeSiCuNbB ribbons and wires during the first stages of crystallisation to a nanophase structure
Appl. Phys. Lett. 64(23) 3184-3186 (1994)

5.- P. Marín, M. Vázquez, A.O. Olofinjana and H.A. Davies
Influence of the as-cast state on the crystallisation process and the magnetic properties of FeSiBCuNb wires
IEEE Trans. on Magn. 30(6) 4794-4796, (1994)

6.- M. Vázquez, P. Marín, A.O. Olofinjana and H.A. Davies
The magnetic properties of FeSiBCuNb wires during the first stages of nanocrystallisation process
Mat. Sci.For.179-181, 521-526 (1995)

7.- M. Knobel, M.L. Sánchez, P. Marín, C. Gómez-Polo, M. Vázquez and A. Hernando
Influence of Nanocrystallisation on the Magneto-Impedance effect in FeCuNbSiB amorphous wires
IEEE Trans. on Magn. 31(6) 4009-4011 (1995)

8.- M. Knobel, M.L. Sánchez, P. Marín, C. Gómez-Polo, M. Vázquez and A. Hernando
Giant magneto-impedance effect in nanostructured magnetic wires
J. Appl. Phys. 79(3) 1646-1654 (1996)

9.- P. Marín, M. Vázquez, L. Pascual, D. Negri, F. Leccabue, B.E. Watts, H.A. Davies and A. Hernando
Influence of the crystallisation process in the magnetic properties of (Fe, Co)SiB(CuNb) alloys
Mat. Sci. For. 235-238, 743-747 (1997)

10.- C. Gómez-Polo, L. Pascual, M. El Ghannami and P. Marín,
Optimisation of rapidly quenched FeSiBCuNb alloys through the control of the quenching rate
Sensors and Actuators A-Physical 59 (1-3) 261-265 (1997)

11.- N. Murillo, F. Leccabue, B.E. Watts, P. Marín, M. Vázquez, J. González and J.M. Barandiarán
Influence of the injection pressure and crucible-wheel distance on the amorphous state in $Fe_{73.5}Ta_3Cu_1Si_{13.5}B_9$ alloy
Mat. Sci. For. 235-238, 303-308 (1997)

12.- A. Hernando, P. Marín, M. Vázquez and G. Herzer
Thermal dependence of coercivity in Magnetic Nanostructures
J. Magn. Magn. Mat. 177-181, 959-961 (1998)

13.- M. Vázquez, A.P. Zhukov, P. Aragoneses, J. Arcas, J.M. García-Beneytez, P. Marín and A. Hernando
Magnetoimpedance in Glass-coated CoMnSiB Amorphous Microwires
IEEE Trans. on Magn. 34(3) 724-728 (1998)

14.- A. Hernando, P. Marín, M. Vázquez, J. M. Barandiarán and G. Herzer
Thermal dependence of coercivity in soft magnetic nanocrystals
Phys. Rev. B58, 366-370 (1998)

15.- P. Marín, M. Vázquez, A.O. Olofinjana and H.A. Davies
Influence of Cu and Nb on relaxation and crystallisation of FeSiB(CuNb) amorphous wires
NanoStructured Mat. 10(2) 299-310 (1998)

16.- J. Arcas, A. Hernando, J.M. Barandiarán, C. Prados, M. Vázquez, P. Marín, A. Neuweiler
Soft to hard magnetic anisotropy in nanostructured magnetics
Phys. Rev.B 58 (9) 5193-5196 (1998)

17.- R. Gupta, S. Enzo, R. Frattini, A. Hernando, P. Marín, G. Mulas, A. Perin, G. Principi
Structural and magnetic properties of mechanically alloyed $Fe_{81}Si_9B_6Nb_3Cu_1$
Int. J. of Non-Eq. Proc. 10, 283-296 (1998)

18.- M. Vázquez, P. Marín, J. Arcas, A. Hernando, A.P. Zhukov and J. González
The influence of Nanocrystalline structure on the magnetic properties of wires and microwires
Textures and Microstructures 32, 245-267 ISSN: 0730-3300 Publ. by the Gordon and Breanch Science (1999)

19.- P. Marín, M. Vázquez and A. Hernando
Magnetic hardening during the amorphous to nanocrystalline transformation in FeSiBCuNb alloys: theoretical considerations
J. Magn. Magn. Mat. 196, 221-224 (1999)

20.- P. Marin, M. Vázquez, J. Arcas and A. Hernando
Thermal dependence of magnetic properties of Nanocrystalline wires and microwires
J. Magn. Magn. Mat. 203, 6-11 (invited paper) (1999)

21.- L. Pascual, C. Gómez-Polo, P. Marín, M. Vázquez and H.A. Davies
Magnetic hardening in nanocrystalline FeCoSiBCuNb alloy
J. Magn. Magn. Mat. 203 (1999) 79-81 (1999)

22.- P. Marín and A. Hernando
Applications of amorphous and nanocrystalline materials
J. Magn. Magn. Mat. 215-216, 729-734 (2000)

23.- J.M. González, M.I. Montero, P. Crespo, P. Marín and A. Hernando
Hysteresis and relaxation of hard-soft nanocomposite samples
J. Appl. Phys. 87(9) 4759-4761 (2000)

24.- M.J. García-Prieto, E. Pina, A. Zhukov, V. Larin, P. Marín, M. Vázquez and A. Hernando
Glass-coated Co-rich microwires with enhanced permeability
Sensors and Actuators A-Physical 81(1-3) 227-231 (2000)

25.- J. González, M. Montero, P. Crespo, P. Marín, A. Hernando
Hysteresis and relaxation of hard-soft nanocomposite.
Appl. Phys. A 87(9) 4759-4761 (2000)

26.- J. M. González, M.I. Montero, V. Raposo, P. Crespo, P. Marín, A. Hernando
Dipolar interactions in hard-soft nanocomposites
IEEE Trans. on Magn. 3342-3344 (2000)

27.- W. Wulfhekel, H.F. Ding, W. Lutzke, G. Steierl, M. Vázquez, P. Marín, A. Hernando and J. Kirschner
High resolution magnetic imaging by local tunnelling magnetorresistance

Appl. Phys. A 72(4) 463-470 (2001)

28.- P. Marín, M. López, M. Vázquez, A. Hernando
Applications of amorphous samples presenting high magnetomechanical coupling during the first stages of nanocrystallisation process
Sensors and actuators A 91, 218-220 (2001)

29.- P. Marín, M. López, A. Hernando, Y. Iqbal, H.A. Davies, M.R.J. Gibbs
*Influence of Cr-additions in magnetic properties and crystallisation process of amorphous iron based alloys*J. Appl. Phys. 92(1) 374-378 (2002)

30.- C. Gómez-Polo, J. L. Pérez-Landazabal, V. Recarte, J. Campo, P. Marín, M. López, A. Hernando, M. Vázquez
High temperature magnetic behaviour of Fe(Co)-based nanocrystalline alloys
Phys. Rev. B66, 012401-012404 (2002)

31.- A. Hernando, P. Crespo, P. Marín, A. González
Magnetic hysteresis
Encyclopedia of Materials: Science and Technology ISBN 0080431526, 4780-4787 Elsevier (2002).

32.- C. Gómez-Polo, P. Marín, L. Pascual, A. Hernando, M. Vázquez
Structural and magnetic properties of nanocrystalline $Fe_{73.5-x}Co_xSi_{13.5}B_9Cu_1Nb_3$ *alloys*
Phys. Rev. B65, 24433(1)-24433(6) (2002)

33.- P. Marín, A. Hernando
Magnetic Microwires: Manufacture, Properties and Applications
Encyclopedia of Materials: Science and Technology ISBN 0080431526, 1-9 Elsevier (2004)

34.- A. Hernando, P. Marín, M. López, T. Kulik, L.K. Varga, G.Hadjipanayis
Size dependence of effective anisotropy in soft nanocrystalline alloys
Phys. Rev. B 69,52501(1)-52501(4) (2004) CODE: A

35.- D.C. Ile, Á Revés, H. Grahl, J. Eckert, P. Crespo, P. Marín, A. Hernando, S. Suriñach, J. S. Muñoz, M.D. Baró
Thermal stability and crystallisation behaviour of $Fe_{77}C_5B_4(AlGa)_3(PSi)_{11}$ Metallic Glasses
Mat. Sci. Eng.A 375-377, 297-301 (2004)

36.- P. Marín, M. López, K. Varga, T. Kulik, A. Hernando
Influence of mechanical grinding on the structure and magnetic properties of FeCuNbSiB material
J. Magn. Magn. Mat. 272-276, 1131-1133 (2004)

37.- M. López, R. Vlad, P. Crespo, P. Marín, M. D. Baró, A. Hernando
Influence of Co addition on the magnetic and thermal stability behaviour of $Fe_{77-x}Co_xAl_{2.14}P_{8.4}C_5B_4Ga_{0.86}Si_{2.6}$ *amorphous alloys*
J. Magn. Magn. Mat. 272-276, 1153-1154 (2004)

38.- P. Marín, D. Cortina, A. Hernando
High frequency behaviour of amorphous microwires and its applications
J. Magn. Magn. Mat. 290-291, 1597-1600 (2005)

39.- M. López, P. Marín, T. Kulik, A. Hernando
Influence of measuring temperature in size dependence of coercivity in nanostructured alloys
J. Magn. Magn. Mat. 290-291, 171-174 (2005)

40.- P. Marín, C. Gómez-Polo, A. Hernando
Magnetism of two phase magnetic systems composed of nanograins embedded in an amorphous matrix
Materials Science and Engineering 89(3) 033508 1-3 (2006) CODE: A

41.- P. Marín, M. López, J. González- Calbet, A. Hernando

Magnetic field driving custom-assembly in (FeCo) nanocrystals
Applied Physics Letters 89 (3) 033508 1-3 (2006)

42.- P. Marín, M. López, L. Ruiz-González, R. Cortés-Gil, J. González- Calbet, A. Hernando
Magnetic field influence on nanocrystallization process of FeCoSiBCuNb alloys
Phys. stat. sol. (a)203, No.6, 1271-1276 (2006)

43.- M.A. García, P. Marín, J. M. González, P. Crespo, A. Hernando
Nanomagnetismo
Nanociencia y Nanotecnología I (MAGAZINE Sistema Madri+d)

44.- M. López, P. Marín, P. Agudo, I. Carabias, J. de la Venta and A. Hernando
Nanocrystalline FeSiBCuNb alloys: differences between mechanical and thermal crystallisation in amorphous precursors
J. of Alloys and Compounds 434-435, 199-202 (2007)

45.- P. Marín, C. Gómez-Polo, A. Hernando
Magnetism of two phase magnetic systems composed of nanograins embedded in an amorphous matrix
Mat. Sc. and Eng. A 449-451, 71-78 (2007)

46.- P. Marín, A. García-Escorial, M. López, M. Liebich
Microstructural and magnetic behaviour of nanostructured soft alloys prepared by gas atomization
Mat. Sc. and Eng A 449-451, 414-418 (2007)

47.- J. Sánchez-Barriga, M. Lucas, G. Rivero, P. Marín, A. Hernando
Magnetoelectrolysis of Co nanowire arrays grown in a track-etched polycarbonate membrane
J. Magn. Magn. Mat. 312(1) 99-106 (2007)

48.- M. López, P. Marín, P. Agudo, I. Carabias, J. de la Venta and A. Hernando
Nanocrystalline FeSiBCuNb alloys: differences between mechanical and thermal crystallisation in amorphous precursors
J. of Alloys and Compounds 434-435, 199-202 (2007)

49.- P. Marín, D. Cortina, A. Hernando
Electromagnetic Wave Absorbing Material Based on Magnetic Microwires
IEEE Transactions on Magnetics 44(11) (2008)

50.- P. Marín
Microhilos magnéticos amorfos: del laboratorio a la empresa spin-off
Acta Científica y Tecnológica (14) 2008

51.- J. Sanchez-Barriga, M. Lucas, F. Radu, E. Martin, M. Multigner, P. Marín, A. Hernando, G. Rivero
Interplay between the magnetic anisotropy contributions of cobalt nanowires
Phys. Rev. B 80 (18) (2009) Article Number 184424

52.- A.G. Gorriti, P. Marín, A. Hernando
Microwave Power Absorption by Microwires Under Tensile Stress
Sensor Letters 7(3)232-235 (2009)

53.- M. Multigner, E. Frutos, J.L. González-Carrasco, J.A. Jiménez, P. Marín, J. Ibañez
Influence of the sandblasting on the subsurface microstructure of 316LVM stainless steel: Implications on the magnetic and mechanical properties
Mat. Sc. & Eng. C-Biomimetic and Supramolecular Systems 29 (4) 1357-1360 (2009)

54.- P. Marín, A. Hernando
Enhaced magnetic properties of FeCo ribbon nanocrystallized in magnetic field
Appl. Phys. Lett. 94, 122507 (2009)

55.- A.G. Gorriti, P. Marín, A. Hernando

Microwave Power Absorption by Microwires Under Tensile Stress
Sensor Letters 7(3)232-235 (2009)

56.- A. de Hoyos, P. Marín, J. Poch, M.C. Iglesias T. Ortiz, A. Hernando.
La Física del fundamento cerebral: el "Leadfield" un método de análisis en magnetoencefolografía.
Journal of the Royal Academy of Exact Physical and Natural Sciences. 104(1) 139-141

57.- A. G. Gorriti, P. Marín, D. Cortina, A. Hernando.
Microwave attenuation with composite of copper microwires
J. of Magn. and Magn. Mat. 322 (9-12) 1505-1510 (2010).

58.- P. Marín, M. Marcos, A. Hernando.
High magnetomechanical coupling on magnetic microwire for sensors with biological applications
Appl. Phys. Lett. 96 (26), Article Number 262512 (2010)

59.- M. Multigner, S. Ferreiras-Barragnas, E. Frutos, M. Jaafar, J. Ibanez, P. Marín, M.T. Pérez-Prado, G. González-Doncel, A. Asenjo, J.L. González-Carrasco
Superficial severe plastic deformation of 316 LVM stainless steel through grit blasting: Effects on its microstructure and subsurface mechanical properties
Surface & Coatings Technology 205(7) 1830-1837 (2010)

60.- A. García-Escorial, M. Liebich, M. Lopez, P. Marín
Microstructural characterization of gas atomized FeSiBCuNb and FeSi alloys
Journal of Alloys and Compounds 509S, S239-S242 (2011)

61.- A. de Hoyos, J. Portillo, I. Portillo, P. Marín, F. Maestú, J. Poch-Broto, T. Ortiz, A. Hernando
Comparison and Improvements of LCMV and MUSIC Source Localization Techniques for Use in Real Clinical
J. of Neuroscience Methods 205 (2), 312-313 (2012)

62.- P. Marín, A. M. Aragón, M. Liebich, A. García-Escorial, P. Crespo, A. Hernando.
Anomalous low temperature stair like coercivity decrease due to magnetostatic coupling between superconducting and ferromagnetic particles in mixed powders
J. Appl. Phys. 112(1), 0139112 (2012)

63.- P. Marín, A. M. Aragón, A. García Escorial, M. Lieblich, P. Crespo and A. Hernando
Coercivity and its thermal dependence in microsized magnetic particles: Influence of grain boundaries
J. Appl. Phys. 113, 043909 (2013)

64.- C. Herrero-Gómez, P. Marín, A. Hernando
Bias free magnetomechanical coupling on magnetic microwires for sensing applications
Appl. PhyS. Lett. 103, 142414 (2013)

65.- P. Crespo, P. de la Presa, P. Marín, M. Multigner, J.M. Alonso, G. Rivero, F. Yndurain, J.M. González-Calbet and A. Hernando
Magnetism in nanoparticles: tuning properties with coatings
J. of Phys.: Condensed Matter 25, 484006. (2013)

66.- J. Arranz-Andres, N. Pulido-Gonzalez, P. Marín, A. M. Aragon, and M. L. Cerrada
Electromagnetic Shielding Features in Lightweight PVDF-Aluminum Based Nanocomposites
Prog. in Electrom. Res. B 48, (175-196) (2013)

67.- A. de Hoyos, J. Portillo, P. Marín, F. Maestú, J. Lafuente M., A. Hernando
Clustering strategies for optimal trial selection in multisensor environments. An eigenvector based approach
Journal of Neuroscience Methods 222, (1-14) (2014)

68.- C. Herrero-Gómez, A. M. Aragón, M. Hernando-Rydings, P. Marín, A. Hernando
Stress and field contactless sensor based on the scattering of electromagnetic waves by a single ferromagnetic microwire
App. Phys. Lett. 105, 092405 - 092409 (2014)

69.- I. García-Serrano, A. Hernando, P. Marín
Low temperature magnetic behavior of glass-covered magnetic microwires with gradient nanocrystalline Microstructure
J. Appl. Phy. 115 (3) 033903 - 033903-6 (2014)

70.- P. Sirvent, E. Berganza, A. M. Aragón, A. Bollero, A. Moure, M. García-Hernández, P. Marín, J. F. Fernández and A. Quesada
Effective high-energy ball milling in air of $Fe_{65}Co_{35}$ alloys
J. of Appl. Phys. 115, 17B505 - 17B509 (2014)

71.- A. García Escorial, P. Crespo, A. Hernando et al.
Magnetism, microstructure and first principles calculations of atomized and annealed Ni_3Al
J. Alloys and Comp, 615, 1, S645-S647 (2014)

72.- A. M. Aragón, M. Hernando-Rydings, A. Hernando and P. Marín
Liquid pressure wireless sensor based on magnetostrictive microwires for applications in cardiovascular localized diagnostic
AIP Advances, 5, 0871321 - 087132-7 (2015)

73.- V. Velasco, P. Crespo, P. Marín et al.
Short range order fluctuations and itinerant ferromagnetism in Ni_3Al
Solid State Communications 201, 111-114 (2015)

74.- M. Hernando Rydings, P. Marín, A. M. Aragón-Sánchez, E. Bravo, V. López-Domínguez, I. Martínes, C. Fernández, A. Bilbao, F. J. Serrano, R. Vega, A. Hernando
Development of a telemetric system for postoperative follow-up or vascular surgery procedures: In vitro Model
J. of the Am. Heart Association 5(7) e003608 (2016)

75.- A. Hernando, V. López-Domínguez, E. Ricciardi, K. Osiak, P. Marín
Tuned scattering of electromagnetic waves by a finite length ferromagnetic microwire
IEEE Transactions on Antennas and Propagation, 64 (3), 1112 – 115. (2016)

76.- S. Ruiz-Gómez, R. Ranchal, M. Abuín, A.M. Aragón, V. Velasco, P. Marín, A. Mascaraque, L. Pérez
Antiferromagnetic FeMn alloys electrodeposited from chloride-based electrolytes
Phys. Chemi. Chem. Phys. 18 (11), 8212 – 8216, (2016)

77.- V. López-Domínguez, M.A. García, P. Marín, A. Hernando
Tuning Metamaterials by using Amorphous Magnetic Microwires
Scientific Reports 7, 9394-(1) - 9394-(8) (2017)

78.- V. López-Domínguez, M.A. García, P. Marín et al
Measurement of the magnetic permeability of amorphous magnetic microwires by using their antenna resonance
Review of Scientific Reports 88, 12, 124704 (2017)

79.- P. Marín
Wireless Stress Sensor Based on Magnetic Microwires
Magnetic Sensors Development Trends and Applications ISBN 978-953-51-3647-7 Capítulo 2 (2017)

80.- A. de Hoyos, J. Portillo, P. Marín, M. A. García, F. Maestú, J. Lafuente, A. Ferrús, A. Hernando
Improving the spatial resolution of magnetoencephalography images
Neurosurg. 1 (1) 1 – 6 (2018)

81.- A. Quesada, G. Delgado, L. Pascual, A. M. Aragón, P. Marín, C. Granados-Miralles, M. Foerster, L. Aballe, J. E. Prieto, J. de la Figuera, J. F. Fernández, P. Prieto
Exchange-spring behaviour below the exchange length in hard-soft bilayers in multidomain configurations
Phys. Rev. B 98 (21) 214435, (2018)

82.- E. Blázquez-Blázquez, J. Arranz-Andrés, J. Ressia, E.M Vallés, P. Marín, A.M Aragón, E. Pérez, M.L Cerrada
Electromagnetic interference shielding response and rheological behaviour of lightweight nanocomposites based on isotatic polypropylene and Al nanoparticles
Polymer Testing, 72, 263 – 270 (2018)

83.- P. Marín, A.M.P. Gueye, D. Archilla.
Development trend on tunable microwave micro-antennas based on amorphous magnetic microwires and application prospect on wireless sensing technology
Int. Rob. Auto J. 4 (2), 124 – 126 (2018)

84.- A. Moya, D. Archilla, E. Navarro, A. Hernando, P. Marín
Scattering of microwaves by a passive array antenna based on amorphous ferromagnetic microwires for wireless sensors with biomedical applications
Sensors 19, 3060 (2019)

85.- R. A. Prato, V. Van Vught, S. Eggermont, G. Pozo, P. Marín, J. Fransaer, X .Domínguez-Benetton
Gas diffusion electrodes on the electrosynthesis of controllable iron oxide nanoparticles
Nature Scientific Reports, 9, 15370 (2019)

86.- D. Archilla, A. Moya, A. Hernando, P. Marín
Optimization of tuneable GHz micro-antennas based on giant magnetoimpedance.
J. Magn. Magn. Mat. 469, 289-295 (2019)

87.- J. López-Sánchez, A. Serrano, A. del Campo, M. Abuín, E. Salas-Colera, A. Muñoz-Noval, G.R. Castro, J. de la Figuera, J. F. Marco, P. Marín, N. Carmona, O. Rodríguez de la Fuente
Self-assembly of iron oxide precursor micelles driven by magnetic stirring time in sol-gel coatings
REF. MAGAZINE: RSC Advances, 9, 17571-17580 (2019)

88.- M.A Cobos, P. de la Presa, I. Llorente, J.M. Alonso, A García-Escorial, P. Marín, A. Hernando, J.A. Jiménez
Magnetic phase diagram of nanostructured zinc ferrite as a function of inversion degree δ
J. Phys. Chem C 123, 17472 (2019)

89.- Y. Huaccallo, S. Álvarez-Torrellas, P. Marín, M. V. Gil, M. Larriba, V. Ismael Águeda, G. Ovejero, J. García
Magnetic Fe_3O_4/multi-walled carbon nanotubes materials for a highly efficient depletion of diclofenac by catalytic wet peroxideoxidation
Env. Sc. and Poll. Res. 26(22) 22372-22388 (2019).

90.- J. López-Sánchez, E. Navarro, A. Serrano, C. Granados, A. del Campo, A. Quesada, P. Marín
Ultrafast Particle Size Reduction of $Fe_{73.9}Si_{15.5}Cu_1Nb_3B_{6.6}$ by High-Energy Milling: Nb_2O_5 as a Marker of Permeability Enhancement and Magnetic Hardening
ACS Applied Electronic Materials 2, 1484–1496 (2020).

91.- Papa G. Gueye, J. López-Sánchez, E. Navarro, A. Serrano, P. Marín.
Control of the length of $Fe_{73.5}Si_{13.5}Nb_3Cu_1B_9$ microwires to be used for magnetic and microwave absorbing purposes.
ACS Appl. Mat. & Interfaces 12, 15644−15656 (2020).

92.- I. Morales, D. Archilla, P. de la Presa, A. Hernando, P. Marín.
Colossal heating efficiency via eddy currents in amorphous microwires with nearly zero magnetostriction
Scientific Reports 10, 602 (2020)

93.- G. Pozo, P. de la Presa, R. Prato, I. Morales, P. Marín, J. Fransaer, X. Domínguez-Benetton.
Spin transition nanoparticles made electrochemically.
Nanoscale, 12, 5412-5421. (2020).

94.- J. López-Sánchez, A. Palencia-Ortas, A. del Campo, G. McIntosh, M. Kovacheva, F. Martín-Hernández, N. Carmona, O. Rodríguez de la Fuente, P. Marín, A. Molina-Cardín, M.L. Osete.

Further progress in the study of epsilon iron oxide in archaeological baked clays. REF. MAGAZINE: Phys. of the Earth and Planet. Inte. 307, 106554 (2020).

95.- J.C. Guzmán-Mínguez, L. Moreno-Arche, C. Granados-Miralles, J. López-Sánchez, P, Marín, J.F. Fernández, A. Quesada
Boosting the coercivity of SrFe12O19 nanocrystalline powders obtained using the citrate combustion synthesis method
J. of Phys. D: Applied Physics 54(1), 014002 (2020).

96.- E. Campodoni, M. Velez, E. Fragogeorgi, I. Morales, P. de la Presa, D. Stanicki, S. M. Dozio, S. Xanthopoulos, P. Bouziotis, E. Dermisiadou, M. Rouchota, G. Loudos, P. Marín, S. Laurent, S. Boutry, S. Panseri, M. Montesi, A. Tampieri, M. Sandri
Magnetic and radio-labeled bio-hybrid scaffolds to promote and track in vivo the progress of bone regeneration
Biomaterials Science 9(22), 7575-7590 (2021).

97.- D. Archilla, J. López-Sánchez, A. Hernando, E. Navarro, P. Marín
Boosting the Tunable Microwave Scattering Signature of Sensing Array Platforms Consisting of Amorphous Ferromagnetic Fe2.25Co72.75Si10B15 Microwires and Its Amplification by Intercalating Cu Microwires
Nanomaterials 11 (920) (2021).

98.- D. Matatagui, J. López-Sánchez, A. Peña, A. Serrano, A. del Campo, O. Rodríguez de la Fuente, N. Carmona. E. Navarro, P. Marín, M. C. Horrillo
Ultrasensitive NO_2 gas sensor with insignificant NH3-interference based on a few-layered mesoporous graphene
Sensors and Actuators B. Chemical 335, 129657 (2021).

99.- J. López-Sánchez, E. Navarro, F. Rodríguez-Granado, A. Serrano, P. Marín
Multiphase materials based on the $Fe_{73.9}Si_{15.5}Cu_1Nb_3B_{6.6}$ alloy obtained by dry and wet high-energy ball milling processes
Journal of Alloys and Compounds 864, 158136 (2021).

100.- M. Pozo-Gómez, J.D Aguilera-Martín, P. de la Presa, C. Cruz, P. Marín, D. Matatagui, M.C. Horrillo
Modeling and simulation of a magnonic gas sensor to detected diseases in human breath
2021 13th Spanish Conference on Electron Devices (CDE), 125-128 (2021)

101.- A. Peña, D. Matatagui, C. Cruz; P. de la Presa, C. Horrillo, P. Marín,
Study of magnetoelastic resonance for chemical sensors: Ribbons vs microwires
2021 13th Spanish Conference on Electron Devices (CDE), 106-109 (2021)

102.- R. Martínez García, V. Bilovol, S. Ferrari, P. de la Presa, P. Marín, M. Pagnola
Structural and magnetic properties of a $BaFe_{12}O_{19}/NiFe_2O_4$ nanostructured composite depending on different particle size ratios
Journal of Magnetism and Magnetic Materials 547, 168934 (2022).

103.- A. Castellano-Soria, J. López-Sánchez, C. Granados-Miralles, M. Varela, E. Navarro, C. González, P. Marín
Novel one-pot sol-gel synthesis route of Fe3C/few-layered graphene core/shell nanoparticles embedded in a carbon matrix
Journal of Alloys and Compounds 902, 163662 (2022).

104.- N. Djellal, D. E. Mekki, E. Navarro, P. Marin
Influence of Pr_6O_{11} addition on structural and magnetic properties of mechanically alloyed $Fe_{65}Co_{35}$ nanoparticles
Frattura ed Integrità Strutturale 16(60), 393–406 (2022)

105.- A. Peña, J. D. Aguilera, D. Matatagui, C. Horrillo, A. Hernando, P. Marín
Real-Time Monitoring of Breath Biomarkers with A Magnetoelastic Contactless Gas Sensor: A Proof of Concept

Biosensors 12(10), 871 (2022)

106.- N. Djellal, P. Peczkowski, D. E. Mekki, E. Navarro, T. Tahraoui, J. Pietosa, J. M. Michalik, P. Marín, Ł. Gondek
Tailoring Magnetic Properties of Fe0.65Co0.35 Nanoparticles by Compositing with RE_2O_3 (RE = La, Nd, and Sm)
Materials 15, 7290 (2022)

107.- H. Gouadria, M. Smari, T. Mnasri, J. Necib, J. López-Sánchez, P. Marín, A. P. Jamale, R. B. Younes
Implementing a sol-gel route to adjust the structural and dielectric characteristics of Bi and Fe co-doped $BaTiO_3$ ceramics
Inorganic Chemistry Communications 147, 110241 (2022)

108.- B.T. Lejeune, P. G. B. Gueye, D. Archilla Sanz, E. Navarro, M, Vázquez, R. Pérez del Real, L. H. Lewis, P. Marín
High-Sensitivity Wireless Sensing Using Amorphous Magnetic Microwires
IEEE Sensors Journal 23(2), 1099-1104 (2022)

109.- J. Necib, J. López-Sánchez, F. Rubio-Marcos, A. Serrano, E. Navarro, A. Peña, M. Taoufik, M. Smari, R. E. Rojas-Hernández, N. Carmona, P. Marín
A feasible pathway to stabilize monoclinic and tetragonal phase coexistence in barium titanate-based ceramics
Journal of Materials Chemistry C 10, 17743-17756 (2023)

110.- J. López-Sánchez, A. Peña, A. Serrano, A. del Campo, O. Rodríguez de la Fuente, N. Carmona, D. Matatgui, M.C. Horrillo, J. Rubio-Zuazo, E. Navarro, P. Marín
Generation of Defective Few-Layered Graphene Mesostructures by High-Energy Ball Milling and Their Combination with FeSiCuNbB Microwires for Reinforcing Microwave Absorbing Properties
ACS Applied Materials and Interfaces 15(2), 3507-3521 (2023)

111.- A. Peña, D. Matatagui, F. Ricciardella, L. Sacco, S. Vollebregt, D. Otero, J. López-Sánchez, P. Marín, M. C. Horrillo
Optimization of multilayer graphene-based gas sensors by ultraviolet photoactivation
Applied Surface Science 610, 155393 (2023)

112.- A. Varma, X.u Zhang, B. Lejeune, L. Cebada Almagro, R. P del Real, P. Marin, O. Fitchorova, L. H Lewis, R. Sundaram
Toward remote and secure authentication: Disambiguation of magnetic microwire signatures using neural networks
MRS Communications 13(1), 16-20 (2023)

113.- H. Gouadria, T. Mnasri, A. P. Jamale, J. López-Sánchez, J. Necib, P. Marín, N. Carmona, M. Smari
Spectroscopic properties, conduction processes and the Summerfield scaling of barium titanate ceramics based on Bi and Fe
Inorganic Chemistry Communications 157, 111417 (2023)

114.- A. Castellano-Soria, J. López-Sánchez, A. Serrano, G. Gorni, M. Varela, I. Sardinero, N. Carmona, A. Hernando, P. Marín, E. Navarro
Sol-gel synthesis control of iron-cobalt alloy/ferrite core/shell nanoparticles supported by a carbon medium with semi-hard magnetic features
Journal of Alloys and Compounds 959, 170244 (2023)

115.- J. Calvo-de la Rosa, A. Bou-Comas, J. M. Hernàndez, **P. Marín**, J. M. Lopez-Villegas, J. Tejada, E. M. Chudnovsky
New Approach to Designing Functional Materials for Stealth Technology: Radar Experiment with Bilayer Absorbers and Optimization of the Reflection Loss
Advanced Functional Materials 34, 2308819 (2024)

2 citations Q1

116.- A. Castellano-Soria, E. Navarro, J. López-Sánchez, **P. Marín**
A novel methodology for designing Mono/Bi-slab X-band microwave absorbers of Carbon-Powder composites
Materials and Design 238, 112641 (2024)

Q1

117.- J.D. Aguilera, R. Loriente, L. Soria, A. Begue, R. Ranchal, I. Gràcia, S. Vallejos, A. Hernando, **P. Marín**, P de la Presa, D Matatagui
Anomalies in the magnetostrictive modulation of love surface acoustic waves
AIP Advances 14, 025208 (2024)

Q1

118.- A. Castellano-Soria, E. Navarro, J. López-Sáchez **P. Marín**
Real-time monitoring of breath biomarkers using magnonic wireless sensor based on magnetic nanoparticles
Sensing and Bio-Sensing Research 43, 100629 (2024)

Q1

---

2. International Conferences

1.- AUTHORS: M. VÁZQUEZ, P. MARÍN, J. GONZÁLEZ, A. HERNANDO AND E. PULIDO
TITLE: MAGNETIC AND STRUCTURAL CHARACTERIZATION OF NANOCRYSTALLINE FESIBCUNB ALLOYS
PARTICIPATION TYPE: POSTER
CONGRESS: III WORKSHOP ON NON-CRYSTALLINE SOLIDS
PUBLICATION: TRENDS IN NON-CRYSTALLINE SOLIDS (WORLD SCIENTIFIC, SINGAPORE (1992) PP.151-160
CELEBRATION PLACE: MATALASCAÑAS (HUELVA) ESPAÑA YEAR: 1991

2.- AUTHORS: P. MARÍN, A.O. OLOFINAJANA, H.A. DAVIES AND M. VAZQUEZ
TITLE: NANOCRYSTALLISATION PROCESS OF FESIB BASED ALLOYS
PARTICIPATION TYPE: ***ORAL***
CONGRESS: 14TH GENERAL CONFERENCE GCCMD
PUBLICATION: CONFERENCE PROCEEDINGS
LUGAR DE PRESENTACIÓN: MADRID (ESPAÑA) YEAR: 1994

3.- AUTHORS: P. MARÍN, M. VÁZQUEZ, B. HOFFMAN, H. KRÖNMULLER, A.O. OLOFINJANA AND H.A. DAVIES
TITLE: TEMPERATURE DEPENDENCE OF THE MAGNETIZATION PROCESS IN HEAT TREATED FESIBCUNB WIRES
PARTICIPATION TYPE: POSTER
CONGRESS: IV WORKSHOP ON NON-CRYSTALLINE SOLIDS
PUBLICATION PROCEEDINGS OF THE IV INTERNATIONAL WORKSHOP ON NON CRYSTALLINE SOLIDS (WORLD SCIENTIFIC 1995) PP. 542-546
CELEBRATION PLACE: MADRID (ESPAÑA) YEAR: 1994

4.- AUTHORS: D. NEGRI, P. MARÍN, J.M. ARCAS AND M. VÁZQUEZ
TITLE: INFLUENCE OF Pr ON THE STRUCTURAL AND MAGNETIC PROPERTIES OF HEAT TREATED $PrXFe_{(73.5-X)}Si_{13.5}Nb_3Cu_1$
PARTICIPATION TYPE: POSTER
CONGRESS: IV WORKSHOP ON NON-CRYSTALLINE SOLIDS
PUBLICATION: PROCEEDINGS OF THE NATIONAL SCHOOL "NEW DEVELOPMENT AND MAGNETISM´S APPLICATIONS. NÁPOLES OCTOBER 1995" (WORLD SCIENTIFIC SINGAPORE) EDS. L. LANOTTE, F. LUCARI AND L. PARETI (1996) 218- 221
CELEBRATION PLACE: NÁPOLES (ITALIA) YEAR: 1996

5.- AUTHORS: P. MARÍN, J. ARCAS, A. ZHUKOV, M. VÁZQUEZ AND A. HERNANDO
TITLE: EVOLUTION OF THE MAGNETIC PROPERTIES WITH ANNEALING TEMPERATURE FOR CoMnSiB MICROWIRES
PARTICIPATION TYPE: POSTER
CONGRESS: NATO ASI MAGNETIC HYSTERESIS IN NOVEL MAGNETIC MATERIALS
PUBLICATION: G. C. HADJIPANAYIS (ED). MAGNETIC HYSTERESIS IN NOVEL MAGNETIC MATERIALS. 1997 KUWLER ACADEMIC PUBLISHER. PRINTED IN THE NETHERLANDS (1997)743-748
CELEBRATION PLACE: MIKONOS (GRECIA) YEAR: 1996

6.- AUTHORS: P. MARÍN, M. VÁZQUEZ, J. ARCAS AND A. HERNANDO
TITLE: THERMAL DEPENDENCE OF MAGNETIC PROPERTIES ON NANOCRSYTALLINE WIRES AND MICROWIRES
PARTICIPATION TYPE: **ORAL (CONFERENCIA INVITADA)**
CONGRESS: MNP CONFERENCE
CELEBRATION PLACE: SAN SEBASTIÁN (ESPAÑA) YEAR: 1998

7.- AUTHORS: P. MARÍN, M. VÁZQUEZ, AND A. HERNANDO
TITLE: MAGNETIC HARDENING DURING THE AMORPHOUS TO NANOCRYSTALLINE TRANSFORMATION IN FESIBCUNB ALLOYS: THEORETICAL CONSIDERATIONS
PARTICIPATION TYPE: POSTER
CONGRESS: EMMA CONFERENCE
CELEBRATION PLACE: ZARAGOZA (ESPAÑA) YEAR: 1998

8.- AUTHORS: P. MARÍN AND A. HERNANDO
TITLE: APPLICATIONS OF AMORPHOUS AND NANOCRSYTALLINE MATERIALS
PARTICIPATION TYPE: **ORAL (CONFERENCIA INVITADA)**
CONGRESS: SOFT MAGNETIC MATERIALS (SMM)
CELEBRATION PLACE: BALATONFURED (HUNGRIA) YEAR: 1999

9.- AUTHORS: P. CRESPO, P. MARÍN, P. AGUDO, M. ALOCÉN, A. HERNANDO, A. GARCÍA ESCORIAL, J. ECKERT, S. ROTH AND L. SCHULTZ
TITLE: MECANICALLY ALLOYED $(FE_{0.5}CU_{0.5})_{100-X}ZR_X$ (X=7-17%) ALLOYS
PARTICIPATION TYPE: ***ORAL*** (O-14-3)
CONGRESS: ISMANAM 2001
CELEBRATION PLACE: MICHIGAN YEAR: 2001

10.- AUTHORS: P. MARÍN, M. LÓPEZ AND A. HERNANDO
TITLE: INFLUENCE OF MECHANICAL GRINDING ON THE STRUCTURE AND MAGNETIC PROPERTIES
OF FECUNBSIB MATERIAL
CONGRESS: ISMANAM 2001
CELEBRATION PLACE: MICHIGAN YEAR: 2001

11.- AUTHORS: P. MARÍN, D. CORTINA
TITLE: INFLUENCE OF COMPOSITION IN FERROMAGNETIC RESONANCE OF AMORPHOUS MATERIALS
PARTICIPATION TYPE: **LOCAL COMMITTEE MEMBER** (POSTER)
CONGRESS: INTERNATIONAL WORKSHOP ON MAGNETIC WIRES
PUBLICATION: ABSTRACTS BOOK
CELEBRATION PLACE: SAN SEBASTIÁN (ESPAÑA) YEAR: 2001

12.- AUTHORS: P. MARÍN, M. LÓPEZ, K. VARGA, T. KULIK, A. HERNANDO
TITLE: INFLUENCE OF MECHANICAL GRINDING ON THE STRUCTURE AND MAGNETIC PROPERTIES OF FECUNBSIB MATERIAL
PARTICIPATION TYPE: POSTER
CONGRESS: INTERNACIONAL CONFERENCE ON MAGNETISM (ICM)
CELEBRATION PLACE: ROMA (ITALIA) YEAR: JULY 2003

13.- AUTHORS: M. LÓPEZ, R. VLAD, P. CRESPO, P. MARÍN, M. D. BARÓ, A. HERNANDO
TITLE: INFLUENCE OF CO ADDITION ON THE MAGNETIC AND THERMAL STABILITY BEHAVIOR OF $FE_{77-X}CO_XAL_{2.14}P_{8.4}C_5B_4GA_{0.86}SI_{2.6}$ AMORPHOUS ALLOYS
PARTICIPATION TYPE: POSTER
CONGRESS: INTERNACIONAL CONFERENCE ON MAGNETISM (ICM)
CELEBRATION PLACE: ROMA (ITALIA) YEAR: JULY 2003

14.- AUTHORS: P. MARÍN, M. LÓPEZ, A. HERNANDO
TITLE: MICROSTRUCTURAL ORDER AND MAGNETIC PROPERTIES OF PARTIALLY CRSYTALLISED $Fe_{63.5}Cr_1OSiL_{35}B_9Nb_3Cu_1$ RIBBONS
PARTICIPATION TYPE: ***POSTER CHAIR*** WOMAN (SOFT MAGNETIC MATERIALS SESSION)
CONGRESS: 16TH SOFT MAGNETIC MATERIALS CONFERENCE (SMM 16)
CELEBRATION PLACE: DUSSELDORF (GERMANY) YEAR: SEPTEMBER 2003

15.- AUTHORS: P. MARÍN, D. CORTINA, A. HERNANDO
TITLE: HIGH FREQUENCY MAGNETIC BEHAVIOUR OF MAGNETIC MICROWIRES AND THEIR APPLICATIONS

PARTICIPATION TYPE: ***ORAL***
CONGRESS: JEMS´ 04
CELEBRATION PLACE: DRESDEN (GERMANY) YEAR: SEPTEMBER 2004

16.- AUTHORS: M. LÓPEZ, P. MARÍN, A. HERNANDO
TITLE: INFLUENCE OF MEASURING TEMPERATURA IN SIZE DEPENDENCE COERCIVITY OF NANOSTRUCTURED ALLOYS
PARTICIPATION TYPE: POSTER
CONGRESS: JEMS´04
CELEBRATION PLACE: DUSSELDORF (GERMANY) YEAR: SEPTEMBER 2004

17.- AUTHORS: M. LÓPEZ, P. MARÍN, A. HERNANDO
TITLE: NANOCRYSTALINE FeSiBCuNb: DIFFERENCES BETWEEN MECHANICAL AND THERMAL CRYSTALLIZATION PROCESS IN AMORPHOUS PRECURSORS
PARTICIPATION TYPE: POSTER
CONGRESS: ISMANAM05
CELEBRATION PLACE: PARÍS (FRANCIA) YEAR: JULY 2005

18.- AUTHORS: J. SÁNCHEZ-BARRIGA, E. MARTÍN, M. MULTIGNER, P. CRESPO, P. MARIN, A. HERNANDO, G. RIVERO
TITLE: PREPARATION AND MAGNETIC PROPERTIES OF METALLIC NANOWIRES ARRAYS FABRICATED BY ELECTRODEPOSITION ON POLYCARBONATE MEMBRANES
PARTICIPATION TYPE: POSTER
CONGRESS: EUROMAT 2005
CELEBRATION PLACE: PRAGA YEAR: 5-8 SEPTEMBER 2005

19.- AUTHORS: P. MARÍN, M. LÓPEZ, L PÉREZ PRAM, R. CORTÉS, J. GONZÁLEZ-CALBET, A. HERNANDO
TITLE: INFLUENCE OF MAGNETIC FIELD IN NANOCRYSTALLIZATION PROCESS OF FECOSIBCUNB ALLOYS
PARTICIPATION TYPE: POSTER
CONGRESS: TNT05
CELEBRATION PLACE: OVIEDO (ESPAÑA) YEAR: AUGUST 2005

20.- AUTHORS: P. MARÍN, M. LÓPEZ, A. GARCÍA ESCORIAL, M. LIEBLICH
TITLE: MICROSTRUCTURAL AND MAGNETIC BEHAVIOUR OF NANOSTRUCTURED SOFT ALLOYS PREPARED BY GAS ATOMIZATION
PARTICIPATION TYPE: ***ORAL***
CONGRESS: RQ12
CELEBRATION PLACE: COREA YEAR: AUGUST 2005

21.- AUTHORS: P. MARÍN, C. GÓMEZ-POLO, A. HERNANDO
TITLE: MAGNETISM OF TWO PHASE MAGNETIC SYSTEMS COMPOSED OF NANOGRAINS EMBEBBED IN AN AMORPHOUS MATRIX
PARTICIPATION TYPE: **ORAL (INVITED)**
INVITACIÓN ***CHAIR WOMAN*** (SESIÓN MATERIALES MAGNÉTICOS)
CONGRESS: RQ12
CELEBRATION PLACE: COREA YEAR: AUGUST 2005

---

22. -AUTHORS: P. MARÍN, A. HERNANDO
TITLE: MAGNETIC FIELD DRIVING CUSTOM ASSEMBLY IN (FECO) NANOCRYSTALS
PARTICIPATION TYPE: POSTER
CONGRESS: SUMMER SCHOOL ON WOMEN-IN-NANO: CAREER DEVELOPMENT AND RESEARCH TRENDS
CELEBRATION PLACE: COMARRUGA (SPAIN) YEAR: JUNE 2007

23.- AUTHORS: P. MARÍN, R. SCHAFER, M. LÓPEZ, A. HERNANDO

TITLE: MAGNETIC DOMAINS OBSERVATIONS OF CUSTOM ASSEMBLED FECO NANOGRAINS MICROSTRUCTURES TAILORED BY MEANS OF COBALT PERCENTAGE AND ANNEALING UNDER MAGNETIC FIELD
PARTICIPATION TYPE: POSTER
CONGRESS: TRENDS IN NANOTECHNOLOGY, TNT2007
CELEBRATION PLACE: SAN SEBASTIÁN (SPAIN) YEAR: SEPTEMBER 2007

24.- AUTHORS: P. MARÍN, D. CORTINA, J. CALVO, A. HERNANDO
TITLE: DEVICE FOR INDIVIDUALIZED DETECTION OF ARTICLES CONTAINING MAGNETIC MICROWIRES BASED ON FERROMAGNETIC RESONANCE
PARTICIPATION TYPE: ***ORAL***
CONGRESS: INTERMAG 2008
CELEBRATION PLACE: MADRID (SPAIN) YEAR: MAY 2008

25.- AUTHORS: P. MARÍN, D. CORTINA, A. HERNANDO
TITLE: ELECTROMAGNETIC WAVES ABSORBING MATERIAL BASED ON FERROMAGNETIC MICROWIRES
PARTICIPATION TYPE: ***ORAL***
CONGRESS: INTERMAG 2008
CELEBRATION PLACE: MADRID (SPAIN) YEAR: MAY 2008

26.- AUTHORS: P. MARÍN, D. CORTINA, J. CALVO, A. HERNANDO
TITLE: MICROWAVE ABSORPTION OF AMORPHOUS MICROWIRES CARRYING A LOW FREQUENCY AC CURRENT
PARTICIPATION TYPE: ***ORAL***
CONGRESS: INTERMAG 2008
CELEBRATION PLACE: MADRID (SPAIN) YEAR: MAY 2008

MIEMBRO DEL COMITÉ LOCAL

27.- AUTHORS: A.G. GORRITI, P. MARÍN, A. HERNANDO
TITLE: MICROWAVE POWER ABSORPTION BY MICROWIRES UNDER TENSILE STRESS
PARTICIPATION TYPE: POSTER
CONGRESS: EUROPEAN MAGNETIC SENSORS & ACTUATIORS CONFERENCE (EMSA 2008)
CELEBRATION PLACE: CAEN (FRANCIA) YEAR: JULY 2008

28.- AUTHORS: A.G. GORRITI, P. MARÍN, D. CORTINA, A. HERNANDO
TITLE: MICROWAVE ATTENUATION WITH COMPOSITE COPPER MICROWIRES
PARTICIPATION TYPE: **ORAL(INVITADA)**
CONGRESS: JOINT EUROPEAN MAGNETIC SYMPOSIA (JEMS´08)
CELEBRATION PLACE: DUBLÍN (IRLANDA) YEAR: SEPTEMBER 2008

29.- AUTHORS: P. MARÍN
TITLE: ELECTROMAGNETIC WAVES ABSORBING MATERIALS BASED ON MAGNETIC MICROWIRES
PARTICIPATION TYPE: **POSTER (INVITADO)**
CONGRESS: RESEARCH TRENDS ON NOVEL MAGNETS FOR ELECTROMAGNETIC APPLICATIONS
CELEBRATION PLACE: SANTORINI (GRECIA) YEAR: SEPTEMBER 2008

30.- AUTHORS: P. MARÍN, M. MARCOS, A. HERNANDO
TITLE: ENHACED MAGNETIC PROPERTIES OF FeCo RIBBONS NANOCRYSTALLISED UNDER MAGNETIC FIELD
PARTICIPATION TYPE: POSTER
CONGRESS: Euromat 2009
CELEBRATION PLACE: GLASGOW (REINO UNIDO) YEAR: 7-10 SEPTEMBER 2009

31.- AUTHORS: P. MARÍN, D. CORTINA, A.G. GORRITI, A. HERNANDO
TITLE: MICROWAVES ATTENUATORS BASED ON MICROWIRES COMPOSITES
PARTICIPATION TYPE: **ORAL (INVITADO)**

CONGRESS: PIERS (PROGRESS IN ELECTROMAGNETIC RESEARCH SYMMPOSIUM) 209
CELEBRATION PLACE: MOSCÚ (RUSIA) YEAR: 18-21 AUGUST 2009

32.- AUTHORS: G. RIVERO, M. MARCOS, M. FLORES, M. MULTIGNER, J. SPOTTORNO, P. MARÍN, A. HERNANDO
TITLE: MAGNETOELASTIC SENSOR TO DETERMINE THE INTERNATIONAL NORMALIZED RATIO IN THE TEST OF BLOOD COAGULATION
PARTICIPATION TYPE: ORAL
CONGRESS: EMSA 2010
CELEBRATION PLACE: BODRUM (TURQUÍA) YEAR: 4-7 JULY 2010

33.- AUTHORS: A. GARCÍA-ESCORIAL, M. LIEBICH, M. LÓPEX, P. MARÍN
TITLE: CHARACTERIZARION OF GAS ATOMIZED FeSiBCuNb and FeSi alloys
PARTICIPATION TYPE: POSTER
CONGRESS: ISMANAM 2010
CELEBRATION PLACE: ZURICH (SUIZA) YEAR: JULY 2010

34.- AUTHORS: P. MARÍN
TITLE: HIGH FREQUENCY MAGNETIC MATERIALS
PARTICIPATION TYPE: **ORAL (INVITADO)**
CONGRESS: PIERS (PROGRESS IN ELECTROMAGNETIC RESEARCH SYMMPOSIUM) 2010
CELEBRATION PLACE: CAMBRIDGE (BOSTON) EEUU YEAR: 5-8 JULY 2010

SESSION 1P2A MAGNETIC BASED COMPOSITE MATERIAL
ORGANIZED BY P. MARÍN AND K.N. ROZANOV
CHAIRED: P. MARÍN

35.- AUTHORS: P. MARÍN
TITLE: MAGNETIC MICROWIRES AND THEIR APPLICATIONS
PARTICIPATION TYPE: **ORAL (INVITADO)**
CONGRESS: 5ªSJORNADAS FRANCO-ESPYEARLAS IBERNAM-CMC2 MICRO-NANO SYSTEMS
CELEBRATION PLACE: RESIDENCIA DE INVESTIGADORES (CSIC) BARCELONA YEAR: 25 DE NOVEMBER DE 2010

36.- AUTHORS: P. MARÍN
TITLE: INFLUENCIA DE LA MICROESTRUCTURA DE MICROHILOS MAGNÉTICOS EN LAS PROPIEDADES DE ABSORCIÓN DE COMPOSITES
PARTICIPATION TYPE: **ORAL (INVITADO)**
CONGRESS: NANOBIOMAGNET REUNIÓN
CELEBRATION PLACE: FAC. DE CIENCIAS (UAM)YEAR: 17-18 DE FEBRUARY DE 2011

37.- AUTHORS: A. HERNANDO, P. MARÍN, D. CORTINA, J.M. PORTILLA, E. GIMÉNEZ, S. ALVAREZ-CIENFUEGOS
TITLE: MICROMAG 2000 S.L.: AN EXAMPLE OF THE LONG WAY BETWEEN THE LABORATORY AND THE MARKET. A RADAR ABSORPTION PRODUCT
PARTICIPATION TYPE: **ORAL (INVITADO)**
CONGRESS: IMAGINENANO
CELEBRATION PLACE: BILBAO EXHIBITION CENTER (ESPAÑA) YEAR: 11-14 APRIL 2011

38.- AUTHORS: P. MARÍN,
TITLE: MICROELEMENTOS CON ELEVADO ACOPLO MAGNETOELÁSTICO PARA APLICACIONES BIOLÓGICAS Y DETECCIÓN DE NANOPARTÍCULAS
PARTICIPATION TYPE: **ORAL (INVITADO)**
CONGRESS: NANOPARTÍCULAS MAGNÉTICAS PARA APLICACIONES BIOMÉDICAS
CELEBRATION PLACE: ENATE (HUESCA) (ORGANIZADO POR LA UNIVERSIDAD DE ZARAGOZA)
YEAR: 7-8 APRIL 2011

39.- AUTHORS: F.J. RECIO, V. VELASCO, A. ARAGÓN, P. DE LA PRESA, P. MARÍN, A. HERNANDO, P. CRESPO
TITLE: SYNTHESIS AND CHARACTERIZATION OF HARD FEPT MAGNETIC NANOPARTICLES
PARTICIPATION TYPE: ***ORAL***
CONGRESS: ISMANAM
CELEBRATION PLACE: GIJÓN (ESPAÑA) YEAR: JUNE 2011

40.- AUTHORS: A. ARAGÓN, F.J. RECIO, V. VELASCO, P. MARÍN, P. CRESPO, A. HERNANDO, P. HERRASTI, N. MENÉNDEZ
TITLE: CORROSIÓN DE NUEVOS MAREIALES COMPUESTOS DE MICROHILO MAGNÉTICO NEMBEBIDOS EN MATRIZ POLIMÉRICA
PARTICIPATION TYPE: ***ORAL***
CONGRESS: XXIII REUNIÓN GRUPO DE ELECTROQUÍMICA DE LA RSQE
CELEBRATION PLACE: MURCIA (ESPAÑA) YEAR: SEPTEMBER 2011

41.- AUTHORS: A. GARCÍA-ESCORIAL, M. LIEBICH, A. HERNANDO, A. ARAGÓN, P. MARÍN
TITLE: DEPENDENCE OF THE COERCIVE FORCE FIELD WITH THE TEMPERATURE IN GAS ATOMIZED FESIBCUNB
PARTICIPATION TYPE: POSTER
CONGRESS: ISMANAM 2011
CELEBRATION PLACE: GIJÓN (ESPAÑA) YEAR: JUNE 2011

42.- AUTHORS: P. MARÍN, A. HERNANDO
TITLE: HIGH MAGNETOMECHANICAL COUPLING ON NANOCRYSTALLINE MICROWIRE FOR BIOSENSORS APPLICATIONS
PARTICIPATION TYPE: ***ORAL***
CONGRESS: XI INTERNATIONAL CONFERENCE ON NANOSTRUCTURED MATERIALS
CELEBRATION PLACE: RODAS (GRECIA) YEAR: AUGUST 2012

43.- AUTHORS: P. MARÍN
TITLE: PARTICLE SIZE INFLUENCE ON LOW TEMPETURE MAGNETIC BEHAVIOUR OF MICROMETRIC PARTICLES
PARTICIPATION TYPE: **INVITADA**
CONGRESS: WORKSHOP ON "ENERGY AND MATERIALS CRITICALITY"
CELEBRATION PLACE: SANTORINI (GRECIA) YEAR: AUGUST 2013

44.- AUTHORS: P. MARÍN
TITLE: BLOOD PRESSURE SENSOR BASED ON FERROMAGNETIC RESONANCE OF MAGNETIC MICROWIRES
PARTICIPATION TYPE: ***ORAL***
CONGRESS: JEMS 2013
CELEBRATION PLACE: RODAS (GRECIA) YEAR: AUGUST 2013

45.- AUTHORS: V. LOPEZ-DOMINGUEZ, E. RICCARDI, K. OSIAK, P. MARÍN, A. HERNANDO
TITLE: MICROWAVE SHAPE RESONANCE IN MAGNETIC MICROWIRES TUNED BY GIANT MAGNETOIMPEDANCE EFFECT: SENSING APPLICATIONS
PARTICIPATION TYPE: ***ORAL***
CONGRESS: INTERNATIONAL CONFERENCE ON MAGNETISM 2015
CELEBRATION PLACE: BARCELONA YEAR: JULY 2015

---

46. -AUTHORS: P. MARÍN, A. ARAGÓN, A. HERNANDO-RYDINGS, A. HERNANDO
TITLE: LIQUID PRESSURE WIRELESS STRESS SENSOR BASED ON MAGNETOSTRICTIVE MICROWIRES FOR APPLICATIONS IN CARDIOVASCULAR LOCALIZED DIAGNOSTIC
PARTICIPATION TYPE: PÓSTER
CONGRESS: INTERNATIONAL CONFERENCE ON MAGNETISM 2015
CELEBRATION PLACE: BARCELONA YEAR: JULY 2015

47.- AUTHORS: A. ARAGÓN, P. MARÍN, A. HERNANDO
TITLE: BH ENHANCEMENT IN $SRFE_{12}O_{19}$ HYBRID NANOCOMPOSITES

PARTICIPATION TYPE: PÓSTER
CONGRESS: INTERNATIONAL CONFERENCE ON MAGNETISM 2015
CELEBRATION PLACE: BARCELONA YEAR: JULY 2015

48.- AUTHORS: P. MARÍN, A. ARAGÓN, A. HERNANDO
TITLE: NANOCRYSTALLINE SOFT MAGNETIC RIBBONS AND MICROWIRES: TOWARDS FUTURE DEVELOPMENTS IN ENERGY RELATED APPLICATIONS
PARTICIPATION TYPE: **INVITADA**
CONGRESS: EUROCON-2015
CELEBRATION PLACE: SALAMANCA YEAR: SEPTEMBER 2015

49.- CONGRESS: INTERNATIONAL WORKSHOP ON "RARE EARTH-FREE PERMANENT MAGNETS AND APPLICATIONS". IMDEA NANOCIENCIA (MADRID) DURING THE DATES: 14TH-16TH SEPTEMBER.
CELEBRATION PLACE: MADRID YEAR: 14-16 SEPTEMBER 2015
MIEMBRO DEL COMITÉ ORGANIZADOR

49.- AUTHORS: P. MARÍN,
TITLE: MAGNETIC MICROWIRES FOR BIOMEDICAL APPLICATIONS
PARTICIPATION TYPE: **INVITADA**
CONGRESS: GLOBAL MEDICAL ENGINEERING PHYSICS EXCHANGES AND PAN AMERICAN HEALTH CARE EXCHANGES - GMEPE/PAHCE 2016
CELEBRATION PLACE: MADRID YEAR: APRIL 2016

50.- AUTHORS: P. MARÍN,
TITLE: WIRELESS BIOSENSORS BASED ON MAGNETOELASTIC RESONANCE AND GIANT MAGNETOIMPEDANCE
PARTICIPATION TYPE: **INVITADA**
CONGRESS: EMN MEETING ON DROPLETS 2016
CELEBRATION PLACE: SAN SEBASTÁN (ESPAÑA) YEAR: MAY 2016

51.- AUTHORS: P. MARÍN
TITLE: ELEMENTO SENSOR INALÁMBRICO BASADO EN MAGNETOSTRICCIÓN PARA SEGUIMIENTO POST-OPERATORIO EN CIRUGÍA BASCULAR Y OTRAS APLICACIONES
PARTICIPATION TYPE: **INVITADA**
CONGRESS: IBERSENSOR 2016
CELEBRATION PLACE: VALPARAISO (CHILE) YEAR: OCTOBER 2016

52.- AUTHORS: P. MARÍN
TITLE: MICROSTRUCTURE INFLUENCE ON MICROWAVE REFLECTIVITY OF MAGNETIC MICROWIRES TUNED BY GIANT MAGNETOIMPEDANCE
PARTICIPATION TYPE: **INVITADA**
CONGRESS: INTERNATIONAL CONFERENCE AND EXPO ON CONDENSED MATTER PHYSICS
CELEBRATION PLACE: VALENCIA (ESPAÑA) YEAR: SEPTEMBER 2017

53.- AUTHORS: P. MARÍN
TITLE: MICROWAVE REFLECTIVITY OF MAGNETIC MICROWIRES TUNED BY GIANT MAGNETOIMPEDANCE
PARTICIPATION TYPE: ***ORAL***
CONGRESS: SOFT MAGNETIC MATERIALS CONFERENCE
CELEBRATION PLACE: SEVILLA (ESPAÑA) YEAR: SEPTEMBER 2017

54.- AUTHORS: P. MARÍN
TITLE: HIGH FREQUENCY MAGNETIC MATERIALS
PARTICIPATION TYPE: ***ORAL***

CONGRESS: IV CURSO CEMAG "SUMMER WORKSHOP, RETOS DEL MAGNETISMO BÁSICO Y APLICADO"
CELEBRATION PLACE: MIRAFLORES DE LA SIERRA (MADRID) YEAR: JULY 2018

55.- AUTHORS: G. POZO, R. PRATO, P. MARIN, P. DE LA PRESA, J. FRANSAER, X. DOMINGUEZ-BENETTON (POSTER)
TITLE: MICROWAVE REFLECTIVITY OF MAGNETIC MICROWIRES TUNED BY GIANT MAGNETOIMPEDANCE
PARTICIPATION TYPE: POSTER
CONGRESS; 16TH INTERNATIONAL CONFERENCE ON MOLECULE-BASED MAGNETS
CELEBRATION PLACE: RIO DE JANEIRO, BRASIL YEAR: SEPTEMBER 2018

56.- AUTHORS: X. DOMINGUEZ-BENETTON, F.G. POZO, R. PRATO, P. MARIN, P.DE LA PRESA, J. FRANSAER
TITLE: NANOPARTICLES OF SPIN TRANSITION COMPOUNDS MADE ELECTROCHEMICALLY
PARTICIPATION TYPE: ***ORAL***
CONGRESS: AIMES 2018 MEETING I.
LUGAR DE CELEBRACION: CANCÚN, MEXICO YEAR: OCTOBER 2018

57.- AUTHORS: F. GALVEZ, D. ARCHILLA, M.A. GARCÍA, P. MARIN
TITULO: HIGH FREQUENCY ANTENNAE BASED ON AMORPHOUS MAGNETIC MICROWIRES
TIPO DE PARTICIPACION: ***ORAL***
CONGRESS: V CONGRESS HISPANO-LUSO DE CERAMICA Y VIDRIO
CELEBRATION PLACE: BARCELONA YEAR: OCTOBER 2018

58.- AUTHORS: J. LOPEZ-SANCHEZ, A. SERRANO, A.DEL CAMPO, J.DE LA FIGUERA, J.F. MARCO, M. ABUIN, A.MUÑOZ-NOVAL, N.CARMONA, O.RODRIGUEZ DE LA FUENTE, P.MARÍN.
TITULO: SELF-ASSEMBLY OF IRON OXIDE PRECURSOR MICELLES DRIVEN BY MAGNETIC STIRRING TIME IN SOL-GEL COATINGS
TIPO DE PARTICIPACION: ***ORAL***
CONGRESS: V CONGRESS HISPANO-LUSO DE CERAMICA Y VIDRIO
CELEBRATION PLACE: BARCELONA YEAR: OCTOBER 2018

59.- AUTHORS: J. LÓPEZ-SÁNCHEZ, A. DEL CAMPO, G. MCINTOSH, F. MARTÍN-HERNÁNDEZ, N. CARMONA, Ó. RODRÍGUEZ DE LA FUENTE, P. MARÍN AND M. L. OSETE
TITULO: SOL-GEL SYNTHESIS AND CHARACTERIZATION OF E-FE2O3 AND ITS ROLE IN ARCHEOMAGNETISM
TIPO DE PARTICIPACION: ***ORAL***
CONGRESS: NEWTON WORKSHOP INSTITUTO NACIONAL DE TÉCNICAS AEROESPACIAL (INTA),
LUGAR DE CELEBRACION: TORREJON DE ARDOZ, MADRID YEAR: OCTOBER 2018.

60.- AUTHORS: J. LÓPEZ-SÁNCHEZ, A. SERRANO, A. DEL CAMPO, J. DE LA FIGUERA, J. F. MARCO, M. ABUÍN, N. CARMONA, O. RODRÍGUEZ DE LA FUENTE AND P. MARÍN
TITULO: SELF-ASSEMBY OF IRON OXIDE PRECURSOR MICELLES DRIVEN BY MAGNETIC STIRRING TIME IN SOL-GEL COATINGS
PARTICIPATION TYPE: ***ORAL***
CONGRESS: CEMAG, JORNADA JOVENES INVESTIGADORES.
LUGAR DE CELEBRACION: GIJON YEAR: NOVEMBER 2018

61.- AUTHORS: P. MARÍN
TITULO: SOFT MAGNETIC COMPONENTS: TRANSFORMERS AND INDUCTORS II.
PARTICIPATION TYPE: ***SESION CHAIR POSTER***
CONGRESS: 2019 JOINT MMM-INTERMAG CONFERENCE.
LUGAR DE CELEBRACION: WASHINGTON DC (ESTADOS UNIDOS)
YEAR: 14-18 JANUARY 2019

62.- AUTHORS: P. MARÍN
TITULO: INTERNATIONAL CONFERENCE ON FINE PARTICLE NANOMAGNETISM (ICFPM19

PARTICIPATION TYPE: **INVITED**
CONGRESS: 2019 JOINT MMM-INTERMAG CONFERENCE.
LUGAR DE CELEBRACION: GIJÓN (ASTURIAS) YEAR: 26-31 MAY 2019

63.- AUTHORS: M.A. COBOS, P.DE LA PRESA, I. LLORENTE, J.M. ALONSO, A.GARCÍA-ESCORIAL, P.MARÍN, A.HERNANDO, J.A.JIMÉNEZ
TITULO: "MAGNETIC PHASE DIAGRAM OF NANOSTRUCTURED ZINC FERRITE"
PARTICIPATION TYPE: POSTER
CONGRESS: INTERNATIONAL CONFERENCE ON FINE PARTICLE MAGNETISM
LUGAR DE CELEBRACION: GIJÓN (ESPAÑA). YEAR: 26 – 31 MAY 2019

64.- AUTHORS: P. MARÍN
TITULO: "HIGH FREQUENCY BEHAVIOR OF MAGNETIC MICROWIRES ARRAYS"
PARTICIPATION TYPE: **INVITED**
CONGRESS: 15TH INTERNATIONAL WORKSHOP ON MAGNETISM & SUPERCONDUCTIVITY AT THE NANOSCALE.
LUGAR DE CELEBRACION: COMARUGA (ESPAÑA) YEAR: 30 JUNE-5 JULY 2019.

65.- AUTHORS: P. MARÍN
TITULO "MAGNETIC FIELD TUNABLE METAMATERIAL BASED ON MAGNETIC MICROWIRES".
PARTICIPATION TYPE: **KEYNOTE**
CONGRESS: MATERIALS SCIENCE-2019 CONFERENCE
LUGAR DE CELEBRACION: LONDRES (UK) YEAR: 15-17 JULY 2019

66.- AUTHORS: P. MARÍN
TITULO: "WIRELESS STRESS SENSOR BASED ON GIANT MAGNETOIMPEDANCE FOR BIOMEDICAL APPLICATIONS"
PARTICIPATION TYPE: **INVITED**
CONGRESS: 8TH INTERNATIONAL WORKSHOP ON MAGNETIC WIRES
LUGAR DE CELEBRACION: SVETLOGORSK, KALININGRADO (RUSIA)
YEAR: 19-22 AUGUST 2019

67.- AUTHORS: P. MARÍN
TITULO: MIEMBRO DEL COMITÉ ORGANIZADOR
PARTICIPATION TYPE: POSTER
CONGRESS: REUNIÓN ANUAL DEL CLUB ESPYEARL DE MAGNETISMO.
LUGAR DE CELEBRACION: PAMPLONA YEAR: 17-18 OCTOBER 2019

68.- AUTHORS: P. MARÍN
TITULO: SOFT MAGNETIC COMPONENTS: TRANSFORMERS AND INDUCTORS II.
PARTICIPATION TYPE: CHAIR SESSION BR FERRITES. PILAR MARÍN, ***SESSION CHAIR***, POSTER SESSION
SESSION CHAIR INTEGRATED INDUCTORS, TRANSFORMERS AND POWER ELECTRONICS.
ORAL SESSION.
CONGRESS: 64TH ANNUAL CONFERENCE MMM 2019
LUGAR DE CELEBRACION: LAS VEGAS, NEVADA (ESTADOS UNIDOS).
YEAR: 4-8 NOVEMBER 2019

69.- AUTHORS: P. MARÍN, D. ARCHILLA, E. NAVARRO, J. LÓPEZ AND M.VÉLEZ.
TITULO: "WIRELESS STRESS SENSOR BASED ON MAGNETOELASTIC MICROWIRES FOR BIOMEDICAL APPLICATIONS"
PARTICIPATION TYPE: **INVITED**
CONGRESS: 64TH ANNUAL CONFERENCE MMM 2019
LUGAR DE CELEBRACION: LAS VEGAS, NEVADA (ESTADOS UNIDOS).
YEAR: 4-8 NOVEMBER 2019

70.- TITLE: "EFFECT OF PREPARATION METHOD ON MAGNETIC PROPERTIES OF STOICHIOMETRIC ZINC FERRITE"

AUTHORS: M. A. COBOS, P. DE LA PRESA, J. A. JIMENEZ, I. LLORENTE, J. M. ALONSO, A. GARCIA-ESCORIAL, P. MARIN A. HERNANDO.
TIPO DE COMUNICACIÓN: ***ORAL***
NOMBRE DEL CONGRESS: THE 10TH INTERNATIONAL CONFERENCE ON KEY ENGINEERING MATERIALS (ICKEM 2020).
LUGAR DE CELEBRACION: SKOLTECH, MOSCÚ, (RUSIA) VIRTUAL CONF.
YEAR: 26-29 MARCH 2020

71.- TITLE: "EXCEPTIONAL MAGNETOMECHANICAL RESPONSE OF GLASS-COATED AMORPHOUS MICROWIRES"
AUTHORS: B. LEJEUNE, L.H. LEWIS, R.P.DEL REAL, M. VÁZQUEZ, P. MARÍN, E. NAVARRO, P.GUEYE, D.ARCHILLA
TIPO DE COMUNICACIÓN: ***ORAL***
NOMBRE DEL CONGRESS: MMM 2020 65TH ANNUAL CONF. ON MAGN. AND MAGN. MATERIALS
LUGAR DE CELEBRACION: PALM BEACH, FLORIDA (EEUU) VIRTUAL CONF
YEAR: 2 – 6 NOVEMBER 2020

72.- TITLE: WIRELESS STRESS SENSOR BASED ON MAGNETOELASTIC MICROWIRES FOR BIOMEDICAL APPLICATIONS
AUTHORS: P. MARÍN
TIPO DE COMUNICACIÓN: **INVITED**
NOMBRE DEL CONGRESS: IEEE MTT-S INTERNATIONAL MICROWAVE BIOMEDICAL CONFERENCE
LUGAR DE CELEBRACION: TOULOUSE (FRANCIA) YEAR: 14- 17 DICEMBER 2020

73.- TITLE: SENSORES INALÁMBRICOS BASADOS EN MICROHILOS MAGNÉTICOS PARA MANTENIMIENTO PREDICTIVO DE INFRAESTRUCTURAS
AUTHORS: P. MARÍN
TIPO DE COMUNICACIÓN: **INVITED**
NOMBRE DEL CONGRESS: *JORNADA TÉCNICA: I+D+i en Materiales y Tecnologías de Construcción y Mantenimiento para la Infraestructura Ferroviaria*
LUGAR DE CELEBRACION: Universidad de Granada YEAR: 27 de OCTOBER de 2021

74.- TITLE: SENSORES INALÁMBRICOS BASADOS EN MICROHILOS MAGNÉTICOS PARA MANTENIMIENTO PREDICTIVO DE INFRAESTRUCTURAS
AUTHORS: P. MARÍN
TIPO DE COMUNICACIÓN: **INVITED**
NOMBRE DEL CONGRESS: *XVI Asamblea Plataforma Tecnológica Ferroviaria EspYEARla*
LUGAR DE CELEBRACION: Fundación de los Ferrocarriles EspYEARles Subdirección de Estrategia, Investigación y Formación (Madrid)
YEAR: 17 de NOVEMBER de 2021

75.- TITLE: *WIRELESS SENSORS BASED ON MAGNETIC MICROWIRES FOR PREDICTIVE INFRASTRUCTURE MAINTENANCE*
AUTHORS: P. MARÍN
TIPO DE COMUNICACIÓN: **INVITED**
NOMBRE DEL CONGRESS: GEOLAB – Networking event
LUGAR DE CELEBRACION: CEDEX – Madrid (Spain)
YEAR: 29 de NOVEMBER – 3 de DICEMBER de 2021

76.- TITLE: INSTITUTO DE MAGNETISMO APLICADO
AUTHORS: P. MARÍN
TIPO DE COMUNICACIÓN: **INVITED**
NOMBRE DEL CONGRESS: Spain – Brasil – Chile IEEE Collaboration day
LUGAR DE CELEBRACION: on-line
YEAR: 19-21 de OCTOBER de 2021

77.- TITLE: WIRELESS STRESS SENSOR BASED ON MAGNETOELASTIC MICROWIRES FOR BIOMEDICAL APPLICATIONS: DETECTION OF COLLAGEN CONCENTRATION, PRESSURE AND TEMPERATURE
AUTHORS: P. MARÍN
TIPO DE COMUNICACIÓN: **ORAL**
NOMBRE DEL CONGRESS: 2022 Joint MMM-INTERMAG Conference
LUGAR DE CELEBRACION: on-line
YEAR: JANUARY 2021

78.- TITLE: EMERGING MAGNETIC SENSORS AND TECHNOLOGY TRANSFER
AUTHORS: P. MARÍN
TIPO DE COMUNICACIÓN: **INVITED**
NOMBRE DEL CONGRESS: 2022-IEEE- Magnetics – CEMAG-Summer Course
LUGAR DE CELEBRACION: Llanes (Asturias) Spain
YEAR: JUNE 2022

79.- TITLE: Ball milled graphene for GHz applications
AUTHORS: P. MARÍN
TIPO DE COMUNICACIÓN: **INVITED**
NOMBRE DEL CONGRESS: 15th European School on Molecular Nanoscience
LUGAR DE CELEBRACION: Tordesillas (Valladolid) Spain
YEAR: MAY 2022

80.- Vice Chair organizing committee
NOMBRE DEL CONGRESS: Electromagnetic Sensors and Actuators 2022 (EMSA 2022)
LUGAR DE CELEBRACION: Madrid Spain
YEAR: JULY 2022

81.- TÍTULO: EMERGING WIRELESS MAGNETIC BIOSENSORS BASED ON AMORPHOUS MAGNETIC MATERIALS
AUTHORS: P. MARÍN, D. ARCHILLA, D. NARVÁEZ CADENA
TYPE OF COMMUNICATION: **INVITED**
NOMBRE DEL CONGRESO: 17th Rapidly Quenched and Metastable Materials (RQ 17)
And 27th International Symposium on Metastable, Amorphous and Nanostructured Materials (ISMANAM 27)
VENUE: Warsaw, Poland
YEAR: August 2023

82.- TÍTULO: EMERGING MAGNETIC SENSORS BASED ON AMORPHOUS MAGNETIC MICROWIRES
AUTHORS: P. MARÍN
TYPE OF COMMUNICATION: **INVITED**
NOMBRE DEL CONGRESO: Joint European Magnetic Symposia 2023
VENUE: Madrid (Spain)
YEAR: August 2023

83.- TÍTULO: ULTRASENSITIVE GAS SENSOR BASED ON A FEW-LAYERED MESOPOROUS GRAPHENE OBTAINED BY MECHANICAL ALLOYING
AUTHORS: P. MARÍN, D. MATATAGUI, J. LÓPEZ-SÁNCHEZ, M.C. HORRILLO
TYPE OF COMMUNICATION: **ININVITED**
NAME OF THE CONFERENCE: XI FRANCO-SPANISH WORKSHOP IBERNAM-CMC2
VENUE: ZARAGOZA (SPAIN)
YEAR: November 2023

84.- National Advisory Committee Member
AUTHORS: P. MARÍN
NOMBRE DEL CONGRESO: Joint European Magnetic Symposia 2023
VENUE: Madrid (Spain)
YEAR: September 2023

85.- MAGNETISM BRIDGING ACADEMIA AND INDUSTRY
PARTICIPANT OF SPECIAL SESSION
NOMBRE DEL CONGRESO: JOINT EUROPEAN MAGNETIC SYMPOSIA 2023
VENUE: MADRID (SPAIN)
YEAR: September 2023

3. Direction and participation in competitive research projects

1.- Title: Optimization by microstructural modifications of the magnetic properties of new materials obtained by mechanical alloying and ultrafast cooling

Financing entity: Comunidad de Madrid
Participanting entities: Instituto de Ciencia de Materiales del CSIC
Period, from: 1991 to: 1993
Principal investigator: Jesús Mª González
Number of participanting researchers: 4

2.- Title: Analysis of the coercivity and microstructure and high-tech hard magnetic materials (REMCOMIC BREU-0150- MAT-90 1316-CE)

Financing entity: UNIÓN EUROPEA
Participanting entities:
Period, from: 1990 to: 1992
Principal investigator: Jesús Mª González
Number of participanting researchers: 3

3.- Title: Thermal dependence ofmagnetic behaviour in nanocrystalline alloys

Financing entity: Ministerio de Educación y Ciencia (CICYT MAT 92-0156)
Participanting entities: Instituto de Ciencia de Materiales (CSIC)
Period, from: 1993 to: 1995
Principal investigator: Manuel Vázquez Villalabeitia
Number of participanting researchers: 3

4.- Title: Obtaining, characterization and technological applications of magnetically multiphase structural systems

Financing entity: Ministerio de Educación y Ciencia (*CICYT MAT95-0273)*
Participanting entities: Instituto de Ciencia de Materiales (CSIC)
Period, from: 1995 to: 1998
Grant amount: 167.381,87 €
Principal investigator: Manuel Vázquez Villalabeitia
Number of participanting researchers: 3

5.- Title: Development of preparation methods for, and properly characterization of nanostructured and amorphous magnetic materials of technological interest

Financing entity: NETWORK-HUMAN CAPITAL AND MOBILITY CHRX-CT94-0578
Participanting entities: *Prof. Fabricio Leccabue (Instituto Maspec Parma (CRNS) Italia) en España Prof. Antonio Hernando (Instituto de Magnetismo Aplicado (Universidad Complutense de Madrid))*
Period, from: 1993 to: 1995
Principal investigator: Manuel Vázquez Villalabeitia
Number of participanting researchers: 8

6.- Title: Project for the creation in the Community of Madrid, of a group specialized in the measurement of environmental magnetic fields and their shielding methods

Financing entity: Comunidad de Madrid CAM 06M/020/96
Participanting entities: Instituto de Magnetismo Aplicado
Period, from: 1997 to: 1998
Principal investigator: Antonio Hernando
Number of participanting researchers: 5

7.- Title: Multiple Simultaneous Code (MUSIC)

Financing entity: UNIÓN EUROPEA (BE96-3063. BRPR-CT96-0218) Participanting entities: Brandenburgische Technische Universität Cottbus (Alemania), CEDRAT Technologies (Francia), Etablissement Degreane (Francia), Ikea International AS (Dinamarca), Instituto de Magnetismo Aplicado (UCM) Madrid, Vacuumschmelze GmbH (Alemania)
Period, from: 1/1/1997 to: 31/12/1999
Grant amount: 30.000 €
Principal investigator: Antonio Hernando
Number of participanting researchers: 15

8.- Title: Magnetic Nanocomposites for transformer cores and magnetic refrigeration (SFP MAGNETIC NANOCOMPOSITES)

Financing entity: OTAN (SCIENCE FOR PEACE PROGRAMME) SFP 911930(97) CDW
Participanting entities: Instituto de Magnetismo Aplicado(UCM) España, Hungarian Academy of Sciences, Budapest (Hungría), Warsaw University of Technology (Polonia)
Period, from: 1997 to: 1998
Grant amount: 7.000.000 BEF
Principal investigator: **Pilar Marín (Coordinadora)**
Number of participanting researchers: 6

9.- Title: European Madrid Sevilla Eurocab Test EMSET/ TEN 99 Project contract between Daimler Chrysler Rail, Systems Signal Ab (Se), Alcatel (Es), Alstom Belgium Sa (Fr), Alstom Transport Sa (Fr), Ansaldo (It), Csee Transport Sa (Fr), Ansaldo (It), Csee Transport (Fr), Dimetronic (Es), Siemens (De) And The Instituto De Magnetismo Aplicado for The Independent Assessment On Emset Test Tools Validation

Financing entity: Unión Europea
Participanting entities:
Period, from: 1996 to: 1997
Principal investigator: Coordinador Jaime Tamarit (CEDEX-Madrid) en IMA (Antonio Hernando)
Number of participanting researchers: 40

10.- Title: Obtaining, characterization and technological applications of structurally and magnetically multiphase alloys

Financing entity: Ministerio de Educación (MAT95-0273)
Participanting entities: Instituto de Magnetismo Aplicado (UCM)
Period, from: 1/7/1995 to: 1/7/1998
Grant amount: 167.387 Euros
Principal investigator: Manuel Vázquez
Number of participanting researchers: 7

11.- Title: Magnetic nanostructures as sensor elements: manufacturing and optimization of sensor core

Financing entity: Ministerio de Ciencia y Tecnología (MCyT MAT1999-0422-C02-01)
Participanting entities: Instituto de Magnetismo Aplicado (UCM) España
Period, from: 1/1/2000 to: 31/12/2002
Principal investigator: Antonio Hernando
Number of participanting researchers: 6

12.- Title: Bulk Metallic Glass forming alloys and nanocrystallisation, properties and application (BULK METALLIC GLASSES)

Financing entity: UE (Research Training Networks) HPRN-CT-2000-00033
Participanting entities: AUTONOMOUS UNIVERSITY OF BARCELONA Spain, EUROPEAN SYNCHROTRON RADIATION FACILITY France, INSTITUTE FOR SOLID STATE AND MATERIALS RESEARCH DRESDEN Germany, INSTITUTE OF METALLURGY AND MATERIALS SCIENCES - POLISH ACADEMY OF SCIENCES Poland, UNIVERSIDAD COMPLUTENSE DE MADRID Spain, UNIVERSITY OF SHEFFIELD United Kingdom, UNIVERSITY OF TORINO Italy, UNIVERSITY OF ULM, Germany, University of Cambridge United Kingdom
Period, from: 1/6/2000 to: 31/5/2003
Grant amount: 1.498.000 EUR
Principal investigator: Prof. A.R. Yavari (INSTITUT NATIONAL POLYTECHNIQUE DE GRENOBLE (INPG) FRANCIA) En España: Antonio Hernando/Pilar Marín (IMA-UCM)
Number of participanting researchers: 40

13.- Title: Soft Magnetic Nanomaterials for High Temperature And High Frequency Functional Applications in Power Electronics (Hit-Fcore)

Financing entity: Unión Europea (V Programa Marco - Desarrollo Competititvo y Sostenible) (*PROPOSAL N^{O}. GRD2-2000-30349 CONTRACT N^{O}. G5RD-CT-2001-03009)*
Participanting entities: Polksa, ZAKLAD KONSTRUKCJI ELEKTRONICZNICH MERAWEX SP. ZO.O., France, IMPHY UGINE PRECISION, Polksa, INSTITUTE OF NON FERROUS METALS Magyarorszag, RESEARCH INSTITUTE FOR SOLID STATE PHYSICS AND OPTICS - HUNGARIAN ACADEMY OF SCIENCES, France, THALES S.A., Magyarorszag, TKI - FERRITE DEVELOPMENT AND MANUFACTURING LTD, España, UNIVERSIDAD COMPLUTENSE DE MADRID. Deutschland, DR SPONRENBERG UMWELTSCHUTZ UND VERFAHRENSTECHNIK GMBH, Polska, WARSAW UNIVERSITY OF TECHNOLOGY
Period, from: 1/1/2001 to: 31/12/2004
Grant amount: 3.276.851 €
Principal investigator: *Prof. F. Mazaleyrat (ECOLE NORMALE SUPÉRIEURE DE CACHAN(FRANCIA)*
En España: Pilar Marín/ Antonio Hernando (IMA-UCM)
Number of participanting researchers: 15

14.- Title: Microistemas and Nanodevices with Application ofMedical Diagnosis and Surgery (NANOTEC)

Financing entity: MCYT MAT2002-04246-C05-05
Participanting entities: Instituto de Microelectrónica e Instituto de Magnetismo Aplicado
Period, from: 1/11/2002 to: 31/10/2005
Grant amount: 130.200 Euros
Principal investigator: Patricia Crespo del Arco
Number of participanting researchers: 10

15.- Title: Repair Differential Scanning Calorimeter

Financing entity: MAT 2002-2995-E
Participanting entities: Instituto de Magnetismo Aplicado
Period, from: 1/1/2002 to: 31/12/2002
Principal investigator: Antonio Hernando
Number of participanting researchers: 3

16.- Title: Magnetic Microwires for Electromagnetic Shielding Systems

Financing entity: NATO Science for peace planning grant (PST. EAP. SFP 981112)
Participanting entities: Instituto de Magnetismo Aplicado (UCM), IASI University (Rumanía), Warsaw University (Polonia)
Period, from: 1/6/2004 to: 28/2/2005
Grant amount: 6.000 Euros
Principal investigator: **Pilar Marín**
Number of participanting researchers: 3

17.- Title: Project for the research and development of materials for the shielding of electromagnetic radiation

Financing entity: Comunidad de Madrid (GR/MAT/0429/2004)
Participanting entities: Instituto de Magnetismo Aplicado (UCM)
Period, from: 1/1/2005 to: 31/12/2005
Grant amount: 28.500 €
Principal investigator: **Pilar Marín**
Number of participanting researchers: 3

18.- Title: Acción Especial (Ayuda complementaria para el proyecto G5RD-CT-2001-03009)

Financing entity: Ministerio de Ciencia y Tecnología (MAT2002-11874-E)
Participanting entities: Instituto de Magnetismo Aplicado (UCM)
Period, from: 07/04/2004 to: 06/04/2005
Grant amount: 8.000 €
Principal investigator: Antonio Hernando
Number of participanting researchers:

19.- Title*:* Biofunctional magnetic nanoparticles with biomedical applications

Financing entity: Ministerio de Educación y Ciencia (NAN 2004-09125-C07-05)
Participanting entities: Instituto de Magnetismo Aplicado (UCM)/ Hospital Clínico
Period, from: 31/12/2005 to: 31/12/2008
Grant amount: 138.000 €
Principal investigator: Antonio Hernando
Number of participanting researchers: 2

20.- Title: Multidisciplinary study of behavior in vitro and in animal model of new nanomaterials and micromaterials for treatments of tumors due to hyperthermia

Financing entity: Ministerio de Educación y Ciencia (MAT 2005-06119)
Participanting entities: Instituto de Magnetismo Aplicado (UCM)/ Hospital Clínico
Period, from: 15/10/2005 to: 14/10/2008
Grant amount: 170.000 €
Principal investigator: Guillermo Rivero
Number of participanting researchers: 2

21.- Title: Magnetic nanostructures: manufacturing, properties, biomedical applications y tecnológicas

Financing entity: Comunidad de Madrid (S-0505/MAT/0194)
Participanting entities: Inst. de Magnetismo Aplicado (UCM)/ Un. Autónoma de Madrid / Consejo Superior de Investigaciones Científicas / Hospital de Puerta de Hierro
Period, from: 01/01/2006 to: 31/12/2009
Grant amount: 196.000 €
Principal investigator: Antonio Hernando
Number of participanting researchers: 2

22.- Title: Molecular nanoscience (NANOMOL)

Financing entity: Ministerio de Educación, Cultura y Deporte (CSD2007-00010-(2))
Participanting entities: Instituto de Ciencia Molecular/ Universidad Complutense de Madrid/ Universidad Autónoma de Madrid/ Consejo Superior de Investigaciones Científicas/ Universidad de Alicante/ Instituto de Magnetismo Aplicado
Period, from: 01/10/2007 to: 09/12/2013
Grant amount: 80.000 €
Principal investigator: Eugenio Coronado Miralles/ Antonio Hernando
Number of participanting researchers: 6

23.- Title: Oxides for spintronics (C0002-2008-1)

Financing entity: Fondo de Cooperación Internacional en Ciencia y Tecnología
Participanting entities: CIMAV, Mexico, Trinity College, Dublin, UPM, UACJ, Mexico, IDEA S.A., Mexico, Université Tolulouse, CNRS, Instituto de Magnetismo Aplicado
Period, from: 12/08/2009 to: 30/06/2011
Grant amount: 21.232,33 €
Principal investigator: Antonio Hernando
Number of participanting researchers: 7

24.- Title: Nanoparticles and magnetic composites with technological applications

Financing entity: Ministerio de Ciencia e Innovación (MAT2009-14741-C02-01 (subprograma MAT)
Participanting entities: Instituto de Magnetismo Aplicado(UCM) / Facultad de Ciencias (Universidad Autónoma de Madrid)
Period, from: 01/01/2010 to: 31/12/2012
Grant amount: 217.000€
Principal investigator: Patricia Crespo del Arco
Number of participanting researchers: 2

25.- Title: Fundamentals and applications of molecules, nanoparticles and magnetic nanostructures: from spintronics to biomedicine - NANOBIOMAGNET (S2009/MAT-1726)

Financing entity: Comunidad de Madrid
Participanting entities: Instituto de Magnetismo Aplicado(UCM) / Facultad de Ciencias (Universidad Autónoma de Madrid)
Period, from: 01/01/2010 to: 31/05/2014
Grant amount: 79.342,36€
Principal investigator: Antonio Hernando
Number of participanting researchers: 3

26.- Title*:* Microsenab: Application of amorphous ferromagnetic microwires in load sensorization and radar emission absorption in wind turbine blades

Financing entity: Ministerio de Industria, Turismo y Comercio (Subprograma AVANZA COMPETITIVA I+D+I)
Participanting entities: INSTITUTO DE MAGNETISMO APLICADO/MICROMAG 2000 S.L./ INDRA SISTEMAS
Period, from: 1/1/2010 to: 31/12/2013
Grant amount: 110.662€
Principal investigator: **Pilar Marín Palacios**

27.- Title: Research on new RAM materials that allow absorption in multiband **(**IPT-2011-0893-420000)

Financing entity: Ministerio de Industria, Turismo y Comercio (Subprograma Programa INNPACTO 2011)
Participanting entities: INSTITUTO DE MAGNETISMO APLICADO/MICROMAG 2000 S.L
Period, from: 1/10/2010 to: 31/12/2011
Grant amount: 146.350€
Principal investigator: **Pilar Marín Palacios**
Number of participanting researchers: 5

28.- Title: Research on amorphous ferromagnetic materials applied to the development of high performance and low RCS radomes (TSI-020100-2011-280)

Financing entity: Ministerio de Industria, Turismo y Comercio (Subprograma Programa AVANZA 2011)
Participanting entities: INSTITUTO DE MAGNETISMO APLICADO/MICROMAG 2000 S.L.
Period, from: 1/12/2012 to: 30/11/2015
Grant amount: 49.600€
Principal investigator: **Pilar Marín Palacios**
Number of participanting researchers: 5

29.- Title: Nanocrystalline permanent magnets based on hybrid metal-ferrites (NMP3-SL-2012- 310516)

Financing entity: Unión Europea - FP7-NMP-2012-SMALL-6
Participanting entities: IMDEA Nanociencia, IMA (UCM), Ingeniería Magnética Aplicada (IMA), ICMM (CSIC), Instituto Cerámica y Vidrio (CSIC), Institute for Energy Tecnikke (IFE) Noruega, Cons. Interuniversitario Nazionale per la Scienza e Tecnologia dei Materiali (INSTM) Italia, Center for Materials Crystallography, Aarhus University Dinamarca, Danmarks Tecnikske Universitet Dinamarca, Institut Josef Stefan Eslovenia, Magneti Slovenia, Innovent Alemania.
Period, from**:** 01/12/2012 to: 30/11/2015
Grant amount: 3.479.493 € (175.922 €)
Principal investigator: A. Bollero Principal investigator IMA: **Pilar Marín Palacios**
Number of participanting researchers: 50

30.- Title: Nanostructures and microwires with technological applications in biomedicine and radiation attenuation (MAT2012-37109-C02-01)

Financing entity: Ministerio de Economía y Competitividad
Participanting entities: Instituto de Magnetismo Aplicado (UCM); UAM
Period, from: 01/01/2013 to: 30/06/2016
Grant amount: 114.000 €
Principal investigator: **Pilar Marín Palacios**
Number of participanting researchers: 2

31.- Title: Magnetostrictive microwires for wireless sensorization of mechanical properties in hydrogels for tissue engineering

Financing entity: Ministerio de Economía y Competitividad Programa Estatal de Fomento de la Investigación Científica y Técnica de Excelencia, Subprograma Estatal de Generación de Conocimiento, convocatoria 2013, modalidad 2: Proyectos "Explora Ciencia" y "Explora Tecnología"
Participanting entities: Instituto de Magnetismo Aplicado (UCM)/ Instituto de Catálisis (CSIC)
Period, from: 01/09/2014 to: 31/8/2016
Grant amount: 50.000 €
Principal investigator: **Pilar Marín Palacios**
Number of participanting researchers: 5

32.- Title: New frontiers of fundamental and applied nanomagnetism (NANOFRONTMAG), S2013/MIT-2850

Financing entity: Comunidad de Madrid
Participanting entities: IMDEA-Nanociencia (Rodolfo Miranda Soriano); IMA (Pilar Marín Palacios)
Period, from: 01/10/2014 to: 31/12/2018
Grant amount: 44.150 €
Principal investigator: Antonio Hernando.
Investigador (miembro de Comité de Gestión del Programa) del Instituto de Magnetismo Aplicado de la Universidad Complutense de Madrid

---

33.- Title: Functional magnetic nanoparticles for in-situ thermal activation in physical and chemical processes (MAT2015-67557-C2-1-P)

Financing entity: Ministerio de Economía y Competitividad Programa Estatal de Fomento de la Investigación Científica y Técnica de Excelencia, Subprograma Retos de la Sociedad
Entidades67557 participantes: Instituto de Magnetismo Aplicado (UCM)/ Facultad de Ciencias (Universidad Autónoma de Madrid)
Period, from: 01/01/2016 to: 31/12/2018
Grant amount: 142.100 €
Principal investigator: **Pilar Marín Palacios** (Coordinated proyect manager)

34.- Title: Anisometric permanent hybrid magnets based on inexpensive and non-critical materials (“AMPHIBIAN” 720853 — AMPHIBIAN)

Financing entity: Unión Europea H2020

Participanting entities: Instituto de Magnetismo Aplicado (UCM)/ Instituto de Cerámica y Vidrio (CSIC)/ Aahrus University (Dianamarca)/ CNR(Italia)/ Institut Jozef Stefan (Eslovenia)/ Petroceramicas (Alemania)/ IFE (Noruega)/ General Numerics Research LabProject Partner (Alemania)/ Max Baermann GmbHProject Partner (Alemania)/ AD Particles (España)/ WattsUp Energy (Dinamarca)
Period, from: 01/01/2017 to: 31/12/2019
Grant amount: 60.500 €
Principal investigator**: Pilar Marín Palacios**

35.- Title: Consolider Network in Molecular Nanoscience (MAT2016-81989-REDC)

Financing entity: MINECO- Redes Excelencia (2016)
Participanting entities: ICM-Universidad Valencia; Instituto de Magnetismo Aplicado (UCM)
Duración: 01/06/2017 - 30/06/2019 Grant amount: 41.500 €
Principal investigator: Eugenio Coronado Miralles
Investigador Principal del Instituto de Magnetismo Aplicado (UCM): **Pilar Marín Palacios**

36.- Title: Nanomagnetism solutions to societal challenges (NANOMAGCOST-CM) (Ref.: P2018/NMT-4321)

Financing entity: Community of Madrid
Participanting entities: LASUAM / GNMP-CSIC / IMA-UCM / LBT-UAM / NANOTEC-IMDEA / Instituto de Química Física Rocasolano
Period, from: 01/01/2019 to: 01/01/2023
Grant amount: 64.400 €
Principal investigator: Rodolfo Miranda Soriano
Coordinator grupo UCM: **Pilar Marín Palacios**

37.- Title: Development of magnetic materials and sensors for biomedical applications (Ref.: RTI2018-095856-B-C21)

Financing entity: Ministry of Science, Innovation and Universities
Period, from: JANUARY 2019 to: DICEMBER 2021
Grant amount: 120.000 €
Principal investigator: Patricia de la Presa / **Pilar Marín Palacios**

38.- Title: Materials with electrical, magnetic, optical and thermal functionality (Ref.: PID2021-123112OB-C21)

Financing entity: Ministry of Science, Innovation and Universities
Period, from: JANUARY 2019 to: JULY 2022
Grant amount: 170.000 €
Principal investigator: Patricia de la Presa / **Pilar Marín Palacios**

39.- Title: Nano and Microstructured Magnetic Materials integrated into miniturized and intelligent analytical systems to detect diseases by breath (Ref.: PID2021-123112OB-C21)

Financing entity: Ministry of Science, Innovation and Universities
Period, from: SEPTEMBER 2022 to: AUGUST 2025
Grant amount: 160.000 €
Principal investigator: **Pilar Marín Palacios /** Patricia de la Presa

4. Management and participation in research projects with companies

1.- TITLE contract/project: Contrato para la medida y modificación del campo magnético creado por una bobina situada en la cadena de producción

Contract type: Art 11 LRU
Financing company/administration: ABB Skotz Kontak (Getafe/Madrid)
Participanting entities: Instituto de Magnetismo Aplicado/ ABB Skotz Kontak (Getafe/Madrid)
Period, from: 1/05/1998 to: 31/05/1998
Principal investigator: **Pilar Marín Palacios**
Number of participanting researchers: 3
TOTAL PROJECT: 500.000 Pts

2.- TITLE contract/project: Contract for the measurement and modification of the magnetic field created by a coil located in the production line

Contract type: Art 11 LRU
Financing company/administration: ABB Skotz Kontak (Getafe/Madrid)
Participanting entities: Instituto de Magnetismo Aplicado/ ABB Skotz Kontak (Getafe/Madrid)
Period, from: 1/07/1999 to: 31/07/1999
Principal investigator: **Pilar Marín Palacios**
Number of participanting researchers: 3 TOTAL PROJECT: 500.000 Pts

---

3.- TITLE contract/project: Possible solutions to reduce the magnetic disturbances caused by Metro line 7 of the Hospital Clínico de Madrid

Contract type: Art 11 LRU
Financing company/administration: UTE Paloma 7
Participanting entities: Instituto de Magnetismo Aplicado
Period, from: 1/12/1998 to: 28/02/1999
Principal investigator: Antonio Hernando Grande
Number of participanting researchers: 10 TOTAL PROJECT: 6.000.0000 Pts

---

4.- TITLE contract/project: Production of microwires and their applications in Electromagnetism. Creation of technology-based company.

Contract type: Art 83 LOU
Financing company/administration: Micromag 2000, S.L.
Participanting entities: Instituto de Magnetismo Aplicado/ Micromag 2000, S.L. (Spin-off UCM)
Period, from: 31/05/1998 to: 30/11/2003
Principal investigator: **Pilar Marín Palacios**
Number of participanting researchers: 4 TOTAL PROYECTO: 60.000 Euros

---

5.- TITLE contract/project: Collaboration agreement between the Second Vice-Presidency and the Ministry of Justice and Interior of the Community of Madrid, the Complutense University of Madrid and the Abbott Foundation for the realization of a scientific and technical research work in the field of automatic proximity detection systems

Contract type: Art 83 LOU
Financing company/administration: Comunidad de Madrid y Colegio Farmacéuticos de Madrid
Participanting entities: Instituto de Magnetismo Aplicado/ Micromag 2000, S.L. (Spin-off UCM)
Period, from: 1/04/2004 to: 30/11/2004
Principal investigator: Antonio Hernando Grande / **Pilar Marín Palacios**
Number of participanting researchers: 9 TOTAL PROJECT: 80.000 Euros

---

6.- TITLE contract/project: Contract for the realization of Eurobaliza collection equipment in the transmitting and receiving antennas, as well as the demodulation equipment

Contract type: Art 83 LOU
Financing company/administration: Dimetronic S.A.
Participanting entities: Instituto de Magnetismo Aplicado/ Dimetronic S.A.
Duración, desde: 1/07/2004 to: 30/11/2004
Principal investigator: Jesús Mª González/ Antonio Hernando Grande/ **Pilar Marín Palacios**
Number of participanting researchers: 6 TOTAL PROJECT: 400.000 Euros

---

7.- TITLE contract/project: Design and development of a Magnetic Shielding for Low and Medium Voltage Power Lines

Contract type: Art 83 LOU
Financing company/administration: Uralita Sistemas de Tuberías
Participanting entities: Instituto de Magnetismo Aplicado/ Dimetronic S.A.
Period, from: 1/07/2004 to: 30/11/2005
Principal investigator: Guillermo Rivero/ **Pilar Marín Palacios**
Number of participanting researchers: 4 TOTAL PROYECT: 30.000 Euros

---

8.- TITLE contract/project: Certification of Products and Services Susceptible of Use in the Railway Field

Contract type: Art 83 LOU
Financing company/administration: CETREN Asociación de Acción Ferroviaria
Participanting entities: Instituto de Magnetismo Aplicado
Period, from: 19/02/2005 to: 19/12/2008
Principal investigator: Jesús Mª González
Number of participanting researchers: 4 TOTAL PROJECT: 100. 000 Euros

---

9.- TITLE contract/project: Framework Agreement between the Complutense University of Madrid and Micromag 2000, S.L.

Contract type: Art 83 LOU
Financing company/administration: CETREN Asociación de Acción Ferroviaria
Participanting entities: Instituto de Magnetismo Aplicado
Period, from: 01/07/2006 to:
Principal investigator: Antonio Hernando/ **Pilar Marín Palacios**
Number of participanting researchers: 4

10.- TITLE contract/project: Specific agreement for the technological development of the project of auscultation of platform elements

Contract type: Art 83 LOU
Financing company/administration: ADIF
Participanting entities: Instituto de Magnetismo Aplicado/ADIF
Period, from: 25/07/ 2008 to: 25/12/2009
Principal investigator: **Pilar Marín Palacios**
Number of participanting researchers: 3 TOTAL PROJECT: 96.500 Euros

---

11.- TITLE contract/project: Magnetic microwires: research and optimization of manufacturing parameters

Contract type: Art 83 LOU
Financing company/administration: Micromag 2000 SL
Participanting entities: Instituto de Magnetismo Aplicado / Micromag 2000 SL
Period, from: 1/12/2010 to: 1/12/2011
Principal investigator: **Pilar Marín Palacios**
Number of participanting researchers: 2 TOTAL PROJECT: 10.922 Euros

---

12.- TITLE contract/project: Advisory contract on New Nanostructured Materials

Contract type: Art 83 LOU
Financing company/administration: Micromag 2000, S.L.

Participanting entities: Instituto de Magnetismo Aplicado/ Micromag 2000, S.L.
Period, from: 20/07/ 2011 to:31/12/2013
Principal investigator: **Pilar Marín Palacios**
Number of participanting researchers: 2
TOTAL PROJECT: 36.000 Euros

13.- TITLE contract/project: Advisory contract on Environmental Magnetic Fields

Contract type: Art 83 LOU
Financing company/administration: Micromag 2000, S.L.
Participanting entities: Instituto de Magnetismo Aplicado/ Micromag 2000, S.L.
Period, from: 20/07/ 2011 to:31/12/2013
Principal investigator: **Pilar Marín Palacios**
Number of participanting researchers: 2 TOTAL PROJECT: 25.000 Euros

---

14.- TITLE contract/project: New magnetic materials with high absorption properties of electromagnetic waves

Contract type: Art 83 LOU
Financing company/administration: Micromag 2000, S.L.
Participanting entities: Instituto de Magnetismo Aplicado/ Micromag 2000, S.L.
Period, from: 01/12/ 2011 to:01/06/2014
Principal investigator: **Pilar Marín Palacios**
Number of participanting researchers: 2 TOTAL PROJECT: 25.000 Euros

---

15.- TITLE contract/project: Ambient magnetic fields

Contract type: Art 83 LOU
Financing company/administration: Micromag 2000, S.L.
Participanting entities: Instituto de Magnetismo Aplicado/ Micromag 2000, S.L.
Period, from: 1/10/2011 to: 1/10/2012
Principal investigator: **Pilar Marín Palacios**
Number of participanting researchers: 2 TOTAL PROJECT: 13.200 Euros

---

16.- TITLE contract/project: Course about " MAGNETIC MATERIALS AND INDUCED CURRENTS".

Contract type: Art 83 LOU
Financing company/administration: TECNATOM S.A.
Participanting entities: Instituto de Magnetismo Aplicado/ TECNATOM S.A.
Period, from: 16/11/2011 to: 21/11/2012
Principal investigator: **Pilar Marín Palacios**
Number of participanting researchers: 5 TOTAL PROJECT: 12.000 Euros

---

17.- TITLE contract/project: Cores for winding based on magnetic microwires and rotary magnetic field development to improve sensor functionality

Contract type: Art 83 LOU
Financing company/administration: TECNATOM S.A.
Participanting entities: Instituto de Magnetismo Aplicado/ TECNATOM S.A.
Principal investigator: **Pilar Marín Palacios**
Period, from: 16/04/2012 to: 30/09/2012
TOTAL PROJECT: 16.100 €

18.- TITLE contract/project: Secondary radar characterization in Monte Caxado As Pontes (A Coruña). Electromagnetic emission measurements of the radar antenna.

Contract type: Art 83 LOU
Financing company/administration: INDRA SISTEMAS S.A.
Principal investigator: **Pilar Marín Palacios**
Period: 09/2015 TOTAL PROJECT: 7800 €

19.- TITLE contract/project: Primary radar characterization at Fuerteventura airport. Electromagnetic emission measurements of the radar antenna.

Contract type: Art 83 LOU
Financing company/administration: INDRA SISTEMAS S.A.
Principal investigator: **Pilar Marín Palacios**
Period: 01/2016
TOTAL PROJECT: 7.000 €

20.- TITLE contract/project: Magnetic properties of manganese l odos

Contract type: Art. 83 LOU
Financing company/administration: CEGASA
Principal investigator: **Pilar Marín Palacios**
Period: 01/2016 – 04/2016
TOTAL PROJECT: 6.000 €

21.- TITLE contract/project: Advice on the feasibility of a palatine and lingual magnetic implant device for the treatment of snoring and SD obstructive sleep apnea

Contract type: Art. 83 LOU
Financing company/administration: LUIS AMANDO GARCÍA GONZÁLEZ
Principal investigator: **Pilar Marín Palacios**
Period: 01/2018 – 12/2018
TOTAL PROJECT: 12.100 €

22.- TITLE: Advice on research on magnetoelastic sensors and electromagnetic energy accumulators

Contract type: Art. 83 LOU
Financing company/administration: UNIVERSIDAD ANTONIO DE NEBRIJA
Principal investigator: **Pilar Marín Palacios**
Period: 01/2018 – 12/2018
TOTAL PROYECTO: 19.999,99 €

23.- TITLE: Optimization and design of a magnetic system adjustable in intensity and activatable and deactivatable for application in rehabilitation

Contract type: Art. 83 LOU
Financing company/administration: SELECTED SPORT
Principal investigator: **Pilar Marín Palacios** / Patricia de la Presa
Period: 09/2018 – 09/2019
TOTAL PROYECTO: 9.500 €

24.- TITLE: Advice for the development of a new anti-theft technology, label, system and method for the detection of objects at a long distance

Contract type: Art. 83 LOU
Financing company/administration: INPROTEC LOSS PREVENTION TECHNOLOGIES
Principal investigator: **Pilar Marín Palacios**
Period: 09/2018 – 09/2021
TOTAL PROYECTO: 300.000 €

25.- TITLE: Magnetic characterization of steel samples

Contract type: Art. 83 LOU

Financing company/administration: ARCELORMITTAL INNOVACIÓN, INVESTIGACIÓN E INVERSIÓN S.L.
Principal investigator: **Pilar Marín Palacios**
Period: 10/2018
TOTAL PROYECTO: 2.700 €

26.- TITLE: Kilometre point magnetic beacons

Contract type: Art. 83 LOU
Financing company/administration: COALVISA E IBEROVIAS
Principal investigator: **Pilar Marín Palacios**
Period: 12/2018
TOTAL PROYECTO: 5.000 €

---

27. -TITLE: Conducting joint studies and reports on the State of the Art of Science in radio frequencies and health

Contract type: Art. 83 LOU
Financing company/administration: Asociación EspYEARla de Ingenieros de Telecomunicación.
Principal investigator: **Pilar Marín Palacios**
Period: 01/02/2019 -31/03/2019 TOTAL PROYECTO: 30.000 €

28.- TITLE: Design 2 Oesterd magnetic field generating coil

Contract type: Art. 83 LOU
Financing company/administration: INPROTEC LOSS PREVENTION TECHNOLOGIES S.L.
Principal investigator: **Pilar Marín Palacios**
Period: 05/2019
TOTAL PROYECTO: 6.000 €

29.- TITLE: Preparation of the post-installation report of the anti-disturbance filter located in the interconnection of the AVE in Joaquín Sorolla (Valencia)

Contract type: Art. 83 LOU
Financing company/administration: BOMBARDIER European Investments S.L.U.
Principal investigator: **Pilar Marín Palacios**
Period: 07/2019
TOTAL PROYECTO: 6.000 €

30.- TITLE: Research on the state of the art of electromagnetic fields at industrial frequency (50Hz) and health

Contract type: Art. 83 LOU
Financing company/administration: RED ELÉCTRICA
Principal investigator: **Pilar Marín Palacios**
Period: 19/12/2019 – 18/12/2021
TOTAL PROYECTO: 20.000 €

31.- TITLE: Patent License ES2581127 with TITLE (Label, system and method for the detection of objects at long distance, registration as an international patent on 27/03/2017 with nº presentation PCT/ES 2017/000035, published 19 OCTOBER 2017 con nº PUBLICATION WO 178 668 A1)

Contract type: Art. 83 LOU
Financing company/administration: INPROTEC LOSS PREVENTION TECHNOLOGIES
Principal investigator: **Pilar Marín Palacios**
Periodo: 09/2018-09/2021
TOTAL PROJECT: 200.000 €

---

5. Director of PhD thesis and others research works

TITLE: Mechanisms of nanocrystallization in amorphous precursors: structural and magnetic properties
DOCTORAL STUDENT: Miguel López
UNIVERSITY: Complutense de Madrid FACULTY: Physical sciences
YEAR: 14 MARCH 2007 QUALIFICATION: Sobresaliente "Cum laude"

TITLE: Sincronización y coherencia de la actividad cerebral
DOCTORAL STUDENT: Alfonso de Hoyos
UNIVERSITY: Complutense de Madrid FACULTY: Physical sciences
YEAR: 7 DECEMBER 2011 QUALIFICATION: Sobresaliente "Cum Laude"

TITLE: Development of a telemetry system for postoperative monitoring of vascular surgery procedures: in vitro model
DOCTORAL STUDENT: Manuel Hernando Rydings
UNIVERSITY: Complutense de Madrid FACULTY: Medicina
YEAR: 11 JUNE 2015 QUALIFICATION: Sobresaliente "Cum Laude"

BEST DOCTORAL THESIS AWARD abbott Award for the Best Doctoral Thesis 2015 of the Society EspYEARof Angiology and Cardiovascular Surgery

---

TITLE: Optimization of magnetic composite properties for high and low frequency applications using advanced mechanical alloying techniques of amorphous materials
DOCTORAL STUDENT: Ana Aragón
UNIVERSITY: Complutense de Madrid FACULTY: Physical sciences
YEAR: 7 MARCH 2017 QUALIFICATION:[1] Sobresaliente "Cum Laude" por unanimidad

BEST DOCTORAL THESIS AWARD in the category of Experimental Technological Sciences of the Royal Academy of Doctors 2017

---

6. Patents and productos wiht intelectual property registration, knowledge transfer to productive sector, creation of EBT, etc.

1.- APPLICANTS (p.o. de firma): A. HERNANDO, M. VÁZQUEZ, P. MARÍN, A. ZHUKOV, V. LARIN, A. TORKUNOV, A. ANTONENCO
APPLICTION NUMBER: P9701488 (ES2138906) PRIORITY COUNTRY: ESPAÑA
PRIORITY DATE: 4-7-1997
HOLDER ENTITY: MICROMAG 2000, S.L.
STATES TO WHICH IT HAS BEEN EXTENDED: ESPAÑA
COMPANY/S THAT HARNESS IT: **MICROMAG 2000, S.L.**

2.- APPLICANTS (p.o. de firma): J. ARCAS, P. MARÍN, A. BOLLERO, J.L. MUÑOZ, J.J. FREIJO, F. GUERRERO, C. PRADOS, A. HERNANDO, M. VÁZQUEZ
TITLE: METHOD OF DETECTING RESONANT LABELS AT A DISTANCE
APPLICATION NUMBER: P9801121 (ES2147127) PRIORITY COUNTRY: ESPAÑA
PRIORITY DATE:28-5-1998
HOLDER ENTITY: UNIVERSIDAD COMPLUTENSE DE MADRID
STATES TO WHICH IT HAS BEEN EXTENDED: ESPAÑA
COMPANY/S THAT HARNESS IT:

3.- APPLICANTS (p.o. de firma): G. RIVERO, F. BRIONES, P. MARÍN, A. HERNANDO
TITLE: MAGNETIC FIELD COMPENSATION CURRENT SYSTEM PRODUCED BY ELECTRIC TRACTION RAILWAYS
APPLICATION NUMBER: P20000236 (ES2158825) PRIORITY COUNTRY: ESPAÑA
PRIORITY DATE: 3-2-2000
HOLDER ENTITY: UNIVERSIDAD COMPLUTENSE DE MADRID

STATES TO WHICH IT HAS BEEN EXTENDED: EUROPA (P1072463), CANADA (CA2327180), JAPÓN, ESTADOS UNIDOS (US6492746 B!), AUSTRALIA (PCT 200000236)
COMPANY/S THAT HARNESS IT: **U.T.E. PALOMA 7**

4.- APPLICANTS (p.o. de firma): A. HERNANDO, M. VÁZQUEZ, P. MARÍN, E. FRAGA, P. AGUDO, D.X. CHEN, J. LLORENTE
TITLE: ELECTRONIC MAGNETIC DEVICE FOR CONTROL OF PERIMETER PROTECTION SYSTEMS

APPLICTION NUMBER: P9901732 (ES2152903) PRIORITY COUNTRY: ESPAÑA
PRIORITY DATE: 30-7-99
HOLDER ENTITY: UNIVERSIDAD COMPLUTENSE DE MADRID
STATES TO WHICH IT HAS BEEN EXTENDED
COMPANY/S THAT HARNESS IT: **3 BOBINADOS Y MONTAJES (3BYME S.A.)**

5.- APPLICANTS (p.o. de firma): P. MARÍN, A. HERNANDO, J. GONZALEZ, G. RIVERO
TITLE: TORQUE LIMITING MAGNETIC DEVICE, USABLE AS A SAFETY BRAKE FOR MOBILE PHONES DISPLACED AT LOW SPEED

APPLICATION NUMBER: P20001917 (ES2172416) PRIORITY COUNTRY: ESPAÑA
PRIORITY DATE: 28-7-2000
HOLDER ENTITY: UNIVERSIDAD COMPLUTENSE DE MADRID
STATES TO WHICH IT HAS BEEN EXTENDED: ESPAÑA

5.- APPLICANTS (p.o. de firma): P. MARÍN, A. HERNANDO, P. AGUDO, D. CORTINA
TITLE: AMORPHOUS MICROWIRE AND METHOD FOR ITS MANUFACTURE

APPLICATION NUMBER: P200302352 PRIORITY COUNTRY: ESPAÑA
PRIORITY DATE: 9-10-2003

PUBLICATION NUMBER: ES2238913
HOLDER ENTITY: MICROMAG 2000, S.L.
STATES TO WHICH IT HAS BEEN EXTENDED: EUROPA (EP1557845 A2), EEUUU (US2005/0077073)
COMPANY/S THAT HARNESS IT: **MICROMAG 2000, S.L.**

6.- APPLICANTS (p.o. de firma): J. GONZÁLEZ, P. MARÍN, D. CORTINA, J. CALVO, M.A. GARCÍA, A. HERNANDO
TITLE: PROXIMITY DETECTION SYSTEM OF ELEMENTS OF A SPECIFIC PAIR EQUIPPED WITH ALARM FUNCTIONALITIES AND MAINTENANCE MONITORING, INTEGRITY AND CONTINUOUS OPERATION

APPLICATION NUMBER: P200401523 PRIORITY COUNTRY: ESPAÑA
PRIORITY DATE: 2004
PUBLICATION NUMBER: ES2264331
HOLDER ENTITY: UNIVERSIDAD COMPLUTENSE DE MADRID.
STATES TO WHICH IT HAS BEEN EXTENDED:
COMPANY/S THAT HARNESS IT: **COMUNIDAD DE MADRID**

7.- APPLICANTS (p.o. de firma): **P. MARÍN**, D. CORTINA, J. CALVO, J. GÓMEZ, A. HERNANDO
TITLE: ELECTROMAGNETIC RADIATION ABSORBER BASED ON MAGNETIC MICROWIRES
APPLICATION NUMBER: P200403082 PRIORITY COUNTRY: ESPAÑA
PRIORITY DATE: 2004
PUBLICATION NUMBER: ES2274674
HOLDER ENTITY: MICROMAG 2000, S.L.
STATES TO WHICH IT HAS BEEN EXTENDED: EEUU (US11/315645 Grated), Europa(E5380256) Grated (Validated en Alemania, Francia y Reino Unido)
COMPANY/S THAT HARNESS IT: **MICROMAG 2000, S.L.**

8.- APPLICANTS (p.o. de firma): **P. MARÍN**, D. CORTINA, J. CALVO, J. GÓMEZ, A. HERNANDO
TITLE: MAGNETIC LABEL ACTIVATABLE / DEACTIVATABLE BASED ON MICROWIREICO AND METHOD AND OBTAINING IT
APPLICATION NUMBER: P200500970 PRIORITY COUNTRY: ESPAÑA
PRIORITY DATE: 2005
PUBLICATION NUMBER: ES2268964
HOLDER ENTITY: MICROMAG 2000, S.L.
STATES TO WHICH IT HAS BEEN EXTENDED: EEUU (US11/406692) Europa (E6380088)
COMPANY/S THAT HARNESS IT: **MICROMAG 2000, S.L.**

9.- APPLICANTS (p.o. de firma): **P. MARÍN**, D. CORTINA, J. CALVO, A. HERNANDO
TITLE: METHOD AND SYSTEMS FOR THE INDIVIDUALIZED CHARACTERIZATION OF MAGNETIC ELMENTS BASED ON FERROMAGNETIC RESONANCE
APPLICATION NUMBER: P200600336 PRIORITY COUNTRY: ESPAÑA
PRIORITY DATE: 2006
PUBLICATION NUMBER: ES228393
HOLDER ENTITY: MICROMAG 2000, S.L.
STATES TO WHICH IT HAS BEEN EXTENDED: EEUU (US 11/705723) Europa(E7380032)
COMPANY/S THAT HARNESS IT: **MICROMAG 2000, S.L.**

10.- APPLICANTS (p.o. de firma): **P. MARÍN**, G. RIVERO, M. MULTIGNER, J. SPOTTORNO
TITLE: ENERGY-EFFICIENT MAGNETIC FIELD SENSOR
APPLICATION NUMBER: P20081962 PRIORITY COUNTRY: ESPAÑA
PRIORITY DATE: 2008
PUBLICATION NUMBER: (EN TRÁMITE)
HOLDER ENTITY: MICROMAG 2000, S.L.
STATES TO WHICH IT HAS BEEN EXTENDED:
HOLDER ENTITY: **MICROMAG 2000, S.L.**

11.- APPLICANTS (p.o. de firma): **P. MARÍN**, D. CORTINA, A. HERNANDO
TITLE: ATTENUATOR OF ELECTROMAGNETIC RADIATION AND PROCEDURE FOR THE CONTROL OF THE SPECTRUM OF THE SAME

APPLICATION NUMBER: P20082609 PRIORITY COUNTRY: ESPAÑA
PRIORITY DATE: 2008
PUBLICATION NUMBER: ES2356000 (B1)
HOLDER ENTITY: MICROMAG 2000, S.L.
STATES TO WHICH IT HAS BEEN EXTENDED: EP2325945 (A4), US2011192643 (A1)
HOLDER ENTITY: **MICROMAG 2000, S.L.**

12.- APPLICANTS (p.o. de firma): **P. MARÍN**, D. CORTINA, J. CALVO, A. HERNANDO
TITLE: MAGNETOACOUSTIC LABEL BASED ON MAGNETIC MICROWIRE AND METHOD OF OBTAINING IT
APPLICATION NUMBER: P2006003200 PRIORITY COUNTRY: ESPAÑA
PRIORITY DATE: 21-01-2010
PUBLICATION NUMBER: ES2317769 (B1), US2008143533 (A1), EP1933286 (A2)
HOLDER ENTITY: MICROMAG 2000, S.L.
STATES TO WHICH IT HAS BEEN EXTENDED:
HOLDER ENTITY: **MICROMAG 2000, S.L.**

13.- APPLICANTS (p.o. de firma): **P. MARÍN**, CALVO JAVIER, CORTINA DANIEL, GONZÁLEZ GORRITI AINHOA, HERNANDO GRANDE ANTONIO,
TITLE: CAPACITIVE SENSOR SYSTEM FOR PERIMETER PROTECTION ARRANGEMENT
APPLICATION NUMBER: ES2376453 PRIORITY COUNTRY: ESPAÑA
PRIORITY DATE: 25/02/2010
PUBLICATION NUMBER: ES2524733 (B2)2015-03-31
HOLDER ENTITY: MICROMAG 2000 S.L.
STATES TO WHICH IT HAS BEEN EXTENDED:
HOLDER ENTITY: **MICROMAG 2000 S.L.**

14.- APPLICANTS (p.o. de firma) **P. MARÍN**, D. CORTINA, A. HERNANDO
TITLE: PAINTING WITH METAL MICROWIRES, PROCEDURE OF INTEGRATION OF METAL MICROWIRES IN PAINT AND PROCEDURE OF APPLICATION OF SUCH PAINT ON METAL SURFACES
APPLICATION NUMBER: PCT/ES2009/000412 PAIS DE PRIORIDAD: ESPAÑA
PRIORITY DATE: 09-10-2012
STATES TO WHICH IT HAS BEEN EXTENDED:
HOLDER ENTITY: **MICROMAG 2000 S.L.**

15.- APPLICANTS (p.o. de firma): **P. MARIN**, CALVO JAVIER, CORTINA DANIEL, GÓMEZ REBOLLEDO JUAN JOSÉ, GONZÁLEZ GORRITI AINHOA, HERNANDO GRANDE ANTONIO.
TITLE: ELECTROMAGNETIC RADIATION ATENATOR
APPLICATION NUMBER: W02013144410 PRIORITY COUNTRY: ESPAÑA
PRIORITY DATE: 03-10-2013
PUBLICATION NUMBER:
HOLDER ENTITY: **MICROMAG 2000 S.L.**

16.- APPLICANTS (p.o. de firma): **P. MARÍN**, A.M. ARAGÓN, M. HERNANDO-RYDINGS, A. HERNANDO
TITLE: TELEMETRY SYSTEM FOR POSTOPERATIVE MONITORING OF PROCEDURES IN VASCULAR SURGERY
APPLICATION NUMBER: ES20160000092 20160208 PRIORITY COUNTRY: ESPAÑA
PRIORITY DATE: 25/07/2014
PUBLICATION NUMBER: ES2524733 (B2)2015-03-31
HOLDER ENTITY: UNIVERSIDAD COMPLUTENSE DE MADRID
STATES TO WHICH IT HAS BEEN EXTENDED: In process
COMPANY/S THAT HARNESS IT:

17.- APPLICANTS (p.o. de firma): A.M. ARAGON, P. MARIN, A. HERNANDO, S. DELEDDA, A. QUESADA, J.F. FERNANDEZ LOZANO, A. BOLLERO, F.J. PEDROSA
TITLE: PERMANENT MAGNETIC MICROCOMPOSITE MATERIAL WITHOUT RARE EARTHS AND ITS METHOD OF OBTAINING.
APPLICATION NUMBER: ES20160000092 20160208 PRIORITY COUNTRY: ESPAÑA

PRIORITY DATE: 8/02/2016
PUBLICATION NUMBER ES2632107 (A1) — 2017-09-08
HOLDER ENTITY: UNIVERSIDAD COMPLUTENSE DE MADRID
STATES TO WHICH IT HAS BEEN EXTENDED:
COMPANY/S THAT HARNESS IT: **Adp Particles/ Proyecto AMPHIBIAN**

18.- APPLICANTS (p.o. de firma): **P. MARIN**, A. HERNADO
TITLE: LABEL, SYSTEM AND METHOD FOR LONG-DISTANCE OBJECT DETECTION
APPLICATION NUMBER: ES20160000298 20160413 PRIORITY COUNTRY: ESPAÑA
PRIORITY DATE: 13/04/2016
PUBLICATION NUMBER: ES2581127 (B2) 04/05/2017
CN109074468 (A) CN109074468 (B) EP3444743 (A1) EP3444743 (A4) ES2581127 (A1) ES2581127 (B2) JP2019514130 (A) JP7090552 (B2) US11023795 (B2) US2020265280 (A1) WO2017178668 (A1)
HOLDER ENTITY: UNIVERSIDAD COMPLUTENSE DE MADRID
STATES TO WHICH IT HAS BEEN EXTENDED: USA, JAPAN, EUROPE
COMPANY/S THAT HARNESS IT: **INPROTECT LOSS PREVENTION TECHNOLOGIES S.A.**

19.- APPLICANTS (p.o. de firma): **P. MARIN**, E. NAVARRO, J. LÓPEZ, A. PEÑA, M.C. HORRILLO, D. MATATAGUI
TITLE: LARGE-SCALE SINGLE-STEP AND ROOM TEMPERATURE OBTAINING OF MATERIAL COMPOSED OF FEW SHEETS OF GRAPHENE WITH A HIGH DEGREE OF DEFECTS BY HIGH-ENERGY OSCILLATORY DRY MECHANICAL GRINDING
APPLICATION NUMBER: ES20160000298 20160413 PRIORITY COUNTRY: ESPAÑA
PCT: WO2021ES70502 20210709
PRIORITY DATE: 13/08/2020
PUBLICATION NUMBER: ES2779151 (B2) – 17/12/2020 - EP4180393 (A1) — 17/05/2023
HOLDER ENTITY: UNIVERSIDAD COMPLUTENSE DE MADRID/ CONSEJO SUPERIOR DE INVESTGIACIONES CIENTÍFICAS

20.- APPLICANTS (p.o. de firma): M.C. HORRILLO, D. MATATAGUI, **P. MARIN**, E. NAVARRO, J. LÓPEZ, A. PEÑA
TITLE: CHEMIRESISTIVE SENSOR FOR DETECTING NO_2
APPLICATION NUMBER: ES20200030712 20200710 PRIORITY COUNTRY: ESPAÑA
PCT: WO2022008782 (A1) PRIORITY DATE: 21/01/2022
PUBLICATION NUMBER: ES2890726 (B2) — 23/05/2022 - EP4180393 (A1) — 17/05/2023
HOLDER ENTITY: CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS/ UNIVERSIDAD COMPLUTENSE DE MADRID

21.- APPLICANTS (p.o. de firma): M. YOLDI, **P. MARIN**
TITLE: DEVICE FOR SPORTS TRAINING OR REHABILITATION
APPLICATION NUMBER: ES20220030192 20220309 PRIORITY COUNTRY: ESPAÑA
PCT: WO2022008782 (A1) PRIORITY DATE: 16/10/2023
PUBLICATION NUMBER: ES2950895 (A1) — 2023-10-16
HOLDER ENTITY: SELECTED SPORT SLU

TECNHOLOGY-BASED COMPANIES

1) Participation on creation the Company **MICROMAG 2000, S.L.** "spin-off" for manufature absorbent materials of electromagnetic radiation based on research in magnetic microwires developed at the Instituto de Magnetismo Aplicado de la UCM.

2) Businessman Pedro Ballvé Lantero creates the company **Inprotect Loss Prevention Technologies**, **S.L.** to license and explois the patent "ETIQUETA, SISTEMA Y MÉTODO PARA LA DETECCIÓN DE OBJETOS A LARGA DISTANCIA (ES2581127 (B2))" and signs a contract to advise UCM to carry out the thecnology transfer process.

7. Stays in research centers for more than a month.

CENTER: MASPEC INSTITUTE (CNRS) OF PARMA
CITY: PARMA COUNTRY: ITALY YEAR: 1992
PERIOD: 4 WEEKS
TOPIC: LEARNING THE ULTRA-FAST COOLING TECHNIQUE

CENTER: INSTITUTO MAX-PLANK DE STUTTGART
CITY: STUTTGART COUNTRY: GERMANY YEAR: 1992
PERIOD: 4 WEEKS
TOPIC: LOW TEMPERATURE MAGNETIC CHARACTERIZATION OF NANOCRYSTALLINE WIRES USING THE FORSTER COERCIMETER

CENTER: DEPARTAMENTO DE INGENIERIA DE MATERIALES DE LA UNIVERSIDAD DE SHEFFIELD
CITY: SHEFFIELD COUNTRY: UNITED KINGDOM FECHA: 1993
PERIOD: 4 WEEKS
TOPIC: OBTAINING AMORPHOUS WIRES OF FeSiBCuNb COMPOSITION BY THE ULTRAFAST COOLING TECHNIQUE IN WATER

CENTER: INSTITUTO MAX-PLANK DE STUTTGART
CITY: STUTTGART COUNTRY: GERMANY YEAR: 1993
PERIOD: 4 WEEKS
TOPIC: LOW TEMPERATURE MAGNETIC CHARACTERIZATION OF NANOCRYSTALLINE WIRES USING THE FORSTER COERCIMETER

CENTER: INSTITUTO MAX-PLANK DE STUTTGART
CITY: STUTTGART COUNTRY: GERMANY YEAR: 1994
PERIOD: 4 WEEKS
TOPIC: LOW TEMPERATURE MAGNETIC CHARACTERIZATION OF NANOCRYSTALLINE WIRES USING THE FORSTER COERCIMETER

CENTER: INSTITUT FÜR FESTKÖPER- UND WERKSTOFFORSCHUNG (IFW)
CITY: DRESDEN COUNTRY: GERMANY YEAR: 1995
PERIOD: 6 WEEKS
TOPIC: THERMAL DEPENDENCE OF MAGNETIC PROPERTIES IN MULTIPHASIC ALLOYS

CENTER: INSTITUTE MASPEC PARMA (CNRS)
CITY: PARMA COUNTRY: ITALY YEAR: 1995
PERIOD: 4 WEEKS
TOPIC: OBTAINING AMORPHOUS AND NANOCRYSTALLINE ALLOYS BY ULTRA-FAST ENRICHMENT

CENTER: INSTITUTE MAX PLANK STUTTGART
CITY: STUTTGART COUNTRY: GERAMNY YEAR: 1999
PERIOD: 4 WEEKS
TOPIC: STUDY ON THE INFLUENCE OF CHROMIUM ON THE MAGNETIC PROPERTIES OF NANOCRYSTALLINE WIRES USING THE FORSTER CODE:P COERCIMETER

8.International Collaborations

Department of Materials Engineering, University of Sheffield (UK) – Professor H. A. Davies' group for the manufacture of amorphous magnetic wires

MASPEC Institute of Parma (CNRS) (Italy) – Group of Prof. F. Leccabue for the manufacture of amorphous alloys

Max-Planck Struttgart Institute – Prof. H. Krönmuller's Group for the Characterization of Low Temperature Magnetic Materials by Förster Coerometer

IFW Institute Dresden – Prof. L. Schultz Group for Characterization of Nanocrystalline Materials at High Temperature with Prof. R. Schäfer for study of magnetic domains by Kerr technique

Institute of Applied Physics, Moldovan Academy of Sciences, Kishinev Moldova - Prof. Larin's group for the manufacture of magnetic microwires and their high-frequency characterization

Company Vacuumschmelze GmbH – Group of Prof. H. Herzer for studies of the interaction of exchange in nanocrystalline materials and with the Group of Prof. Hilzinger for studies related to the scaling of magnetic tapes within the framework of the MUSIC project (BE96-3063. BRPR-CT96-0218)

Ikea International AS – Group of Lennart Dahlgren (CEO IKEA Russia) for the development of safety labels within the framework of the MUSIC project (BE96-3063. BRPR-CT96-0218)

University of Delaware – Prof. G. Hadjipanayis Group for Magnetic Nanoparticle Studies

Warsaw University of Technology Faculty of Materials Science and Engineering – Group of Prof. T. Kulik within the framework of the Science for Peace Program (Magnetic Nanocomposites) project in addition to collaborating through the exchange of students within the Erasmus program

Hungarian Academy of Sciences, Budapest (Hungary) – Prog. Group. L. Varga expert in nanocrystalline materials within the framework of the Science for Peace Program (Magnetic Nanocomposites) project in addition to collaborating through the exchange of students within the Erasmus program

Ecole Normale Supérieure de Cachan (Paris) (France) – Group of Prof. F. Mazaleyrat studies on nanocrystalline materials for high frequency

Institute for Energy Tecnikke (IFE) Norway – Group of Prof. S. Deledda to obtain nanoparticles by "cryomilling" technique in the context of the NANOPYME project and through the stay of A.M. Aragón Sánchez as part of his doctoral thesis

Centre for Materials Crystallography, Aarhus University Denmark – Prof. Mogens Christensen's Group for the Crystallographic Study of Magnetic Nanostructures

9. Other merits related to research activity

Awards

II TALGO Award for Technological Innovation (JULY 2001)

Award I Contest of Ideas "Spin-off" for researchers (Community of Madrid), in the area of New Materials, Nanotechnology and Production Technologies (JUNE 2003) "Project for the creation of a company dedicated to the research, manufacture and commercialization of amorphous magnetic materials"

I Award for Technology and Knowledge Transfer Complutense University of Madrid (First Prize in the modality of Experimental Sciences and Engineering) as a member of the research team of the Institute of Applied Magnetism (APRIL 2015)

Award for R&D research activity in Security Matters (2019) awarded by Seguritecnia and the Borredá Foundation

---

Agreements and Frameworks agreements

Member of the Joint Coordination Committee of the Framework Agreement between the Complutense University of Madrid and Micromag 2000 SL 26/07/2006 – 25/07/2011

Coordinator of the Framework Agreement between the Complutense University of Madrid (Institute of Applied Magnetism) and the Antonio de Nebrija University to develop projects and teaching, research and university extension. 27/06/2019 – 27/06/2023.

Coordinator of Agreement between Institute of Applied Magnetism and Institute of Materials Science of Madrid, CSIC. Last renovation: 05/03/2018 - 05/03/2021

Responsible for the Framework Agreement between the Complutense University of Madrid and the Railway Infrastructure Manager (ADIF) for research and development of technologies. 03/2019 – 03/2022.

Scientific Societies

Secretary to Club EspYEARl de Magnetismo (CEMAG) 2015-2016
Vicepresident to Club EspYEARl de Magnetismo (CEMAG) 2017- 2018
President to Club EspYEARl de Magnetismo (CEMAG) 2019 - 2020

Member of Board of Directors and Treasurer of Iberred in Nanotechnologies and Systems (IBERNAM) 2014 – 2020

Numerary partner of Real Sociedad EspYEARla de Física (Nº 2.912) (10 de JUNE 2004)

Full Member of IEEE Magnetic Society

Evaluator

Evaluator of scientific publications, Journals: Applied Physics Letters, Journal of Applied Physics, IEEE Transactions on Magnetics, Journal of Alloys and Compounds, Sensors, Nanoletters, Materials Research, Sensors and Actuators: A. Physical, Journal of Physics D: Applied Physics, Nanomaterials

Evaluator of the H2020 Program of the European Union

- EXPERT CONTRACT CONTRACT NUMBER - CT-EX2006C137896-104 (Marie Curie Fellowships 2020)

- Evaluation H2020-NMP-2015 stage 1 22/04/2015 CT-EX2006C137896-102

- RTD/D/05 Evaluation of H2020-NMP-2015 Stage 2 12 Oct 2015 - 16 Oct 2015 CT-EX2006C137896-103

Projects Evaluator

- Evaluation of Projects contracted by the company SGS IBÉRICA SA Magnetolab, 229618-EFECTOPERL (Anualidad 2015)

Member of Jury of the National Award "Juan de la Cierva" 2020

Member of jury of the Award "Salvador Velayos" (2018 y 2020)

Others

Auditor Interno del Instituto de Magnetismo Aplicado (Organismo Acreditado por ENAC (Entidad Nacional de Acreditación) "Laboratorio de Ensayos de Compatibilidad Electromagnética (UNE-EN ISO/IEC 17025)" Acreditación nº: 421/LE853 (11/06/2004)

Responsible of security of Instituto de Magnetismo Aplicado in the Project "*Contract for the realization of Eurobaliza capture equipment in the transmitting and receiving antennas, as well as the demodulation equipment* "

Organizer in the Instituto de Magnetismo Aplicado of the scientific meetings corresponding to the European projects under her responsability (Multiple Simultaneous Code, HiT-FCore, Magnetic Nanocomposites,etc)

Member of the Board of Directors of Las Rozas Innova (Octubre 2023)