

c v n CURRÍCULUM VITAE NORMALIZADO



DAVID SERRATE DONOSO

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**DAVID SERRATE DONOSO**

Surname(s): **SERRATE DONOSO**
 Name: **DAVID**
 DNI: **25175682C**
 ORCID: **0000-0002-3260-9641**
 ScopusID: **8640856600**
 ResearcherID: **B-1433-2016**
 Date of birth: **16/04/1978**
 Gender: **Male**
 Contact address: **Facultad de Ciencias, C/ Pedro Cerbuna 12**
 Postcode: **50009**
 Contact country: **Spain**
 Contact city: **Zaragoza**
 Land line phone: **(0034) 976761216**
 Personal web page: **<http://personal.unizar.es/serrate/>**

Current professional situation

Department: Instituto de Nanociencia y Materiales de Aragón. Área: Materia Condensada. Área de conocimiento (Macroárea): Ciencias. Campo de conocimiento de evaluación CNEAI: Ciencias

Professional category: Científico Titular

Start date: 23/07/2018

Type of contract: Civil servant

Dedication regime: Full time

Primary (UNESCO code): 221029 - Solid state physics

Performed tasks: Científico Titular CSIC en el Instituto de Nanociencia y Materiales de Aragón desde 23/07/2018

Identify key words: Physics - Structure of materials; Description; Structure; Surfaces and interphases; Surface spectroscopy; Tunnel effect; Excitations; Electronic structure; Magnetism; Experimental quantum devices; Experimental and theoretical results of atoms and molecules physical behaviour; Física Im -- sistemas de bajas dimensiones y mesoscopicos [eng]; Quantum threads; Interfaces; Spin chains and ladders

Previous positions and activities

	Employing entity	Professional category	Start date
1	Universidad de Zaragoza	Profesor Contratado Doctor	19/07/2016
2	Instituto Universitario de Investigación de Nanociencia de Aragón (INA)	Profesor contratado doctor interino	01/12/2014
3	Instituto Universitario de Investigación de Nanociencia de Aragón (INA)	Ramón y Cajal Researcher	01/12/2009
4	Instituto de Ciencia de Materiales de Aragón	Postdoc	01/03/2009
5	Institut für Angewandte Physik, University of Hamburg	IEF Marie Curie Postdoc	01/10/2006
6	University of Hamburg	Investigador postdoctoral MEC	01/09/2006



	Employing entity	Professional category	Start date
7	Instituto Universitario de Investigación de Nanociencia de Aragón (INA)	Postdoc	01/01/2006
8	Instituto de Ciencia de Materiales de Aragón	PhD Student	01/01/2002
9	Instituto de Ciencia de Materiales de Aragón	Research Student	01/09/2001
10	Facultad de Ciencias	Research Student	01/10/2000
11	Department of Physics, University of Southampton	Research Student	01/06/2000

- 1** **Employing entity:** Universidad de Zaragoza
City employing entity: Zaragoza, Spain
Professional category: Profesor Contratado Doctor
Start-End date: 19/07/2016 - 22/07/2018 **Duration:** 2 years - 4 days
- 2** **Employing entity:** Instituto Universitario de Investigación de Nanociencia de Aragón (INA)
City employing entity: Zaragoza, Spain
Professional category: Profesor contratado doctor interino
Start-End date: 01/12/2014 - 19/07/2016 **Duration:** 1 year - 7 months - 19 days
- 3** **Employing entity:** Instituto Universitario de Investigación de Nanociencia de Aragón (INA)
City employing entity: Zaragoza, Spain
Professional category: Ramón y Cajal Researcher
Start-End date: 01/12/2009 - 30/11/2014 **Duration:** 5 years
- 4** **Employing entity:** Instituto de Ciencia de Materiales de Aragón
City employing entity: Zaragoza, Spain
Professional category: Postdoc
Start-End date: 01/03/2009 - 01/12/2009 **Duration:** 9 months - 1 day
- 5** **Employing entity:** Institut für Angewandte Physik, University of Hamburg
City employing entity: Hamburg, Germany
Professional category: IEF Marie Curie Postdoc
Start-End date: 01/10/2006 - 01/03/2009 **Duration:** 2 years - 5 months - 1 day
- 6** **Employing entity:** University of Hamburg
City employing entity: Hamburg, Germany
Professional category: Investigador postdoctoral MEC
Start-End date: 01/09/2006 - 31/03/2007 **Duration:** 7 months
- 7** **Employing entity:** Instituto Universitario de Investigación de Nanociencia de Aragón (INA)
City employing entity: Zaragoza, Spain
Professional category: Postdoc
Start-End date: 01/01/2006 - 30/09/2006 **Duration:** 9 months
- 8** **Employing entity:** Instituto de Ciencia de Materiales de Aragón
City employing entity: Zaragoza, Spain
Professional category: PhD Student
Start-End date: 01/01/2002 - 31/12/2005 **Duration:** 4 years



- 9** **Employing entity:** Instituto de Ciencia de Materiales de Aragón
City employing entity: Zaragoza, Spain
Professional category: Research Student
Start-End date: 01/09/2001 - 31/12/2001 **Duration:** 4 months
- 10** **Employing entity:** Facultad de Ciencias
City employing entity: Zaragoza, Spain
Professional category: Research Student
Start-End date: 01/10/2000 - 01/06/2001 **Duration:** 8 months - 1 day
- 11** **Employing entity:** Department of Physics, University of Southampton
City employing entity: Southampton, United Kingdom
Professional category: Research Student
Start-End date: 01/06/2000 - 30/09/2000 **Duration:** 4 months



Education

University education

1st and 2nd cycle studies and pre-Bologna degrees

Name of qualification: Licenciado en Ciencias Físicas

City degree awarding entity: Zaragoza, Spain

Degree awarding entity: Universidad de Zaragoza

Date of qualification: 22/08/2001

Prize: Premio fin de Carrera CAI

Doctorates

Doctorate programme: Programa Oficial de Doctorado en Física

Degree awarding entity: Universidad de Zaragoza

City degree awarding entity: Zaragoza, Spain

Date of degree: 25/11/2005

Obtained qualification: Sobresaliente Cum Laude

Recognition of quality: Yes

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
German		B1	B1	B1	A1
English		C1	C1	C1	C1
French		C1	A1	A1	A1
Gallegan		C1	C1	C1	A1
Spanish		C1	C1	C1	C1

Teaching experience

General teaching experience

- 1** **Name of the course:** Física de materiales magnéticos
University degree: Máster Universitario en Física y Tecnologías Físicas
Start date: 20/09/2021 **End date:** 31/08/2023
Entity: Universidad de Zaragoza

- 2** **Name of the course:** Técnicas físicas III
University degree: Graduado en Física
Start date: 16/09/2019 **End date:** 31/08/2023



Entity: Universidad de Zaragoza

- 3 Name of the course:** Técnicas físicas III
University degree: Programa conjunto en Física-Matemáticas (FisMat)
Start date: 16/09/2019 **End date:** 31/08/2023
Entity: Universidad de Zaragoza
- 4 Name of the course:** Caracterización II: Microscopias avanzadas
University degree: Máster Universitario en Materiales nanoestructurados para aplicaciones nanotecnológicas
Start date: 19/09/2010 **End date:** 14/09/2022
Entity: Universidad de Zaragoza
- 5 Name of the course:** Técnicas físicas III
University degree: Programa conjunto en Física-Matemáticas (FisMat)
Start date: 18/09/2017 **End date:** 16/09/2018
Entity: Universidad de Zaragoza
- 6 Name of the course:** Física de materiales magnéticos
University degree: Máster Universitario en Física y Tecnologías Físicas
Start date: 19/09/2016 **End date:** 16/09/2018
Entity: Universidad de Zaragoza
- 7 Name of the course:** Técnicas físicas III
University degree: Graduado en Física
Start date: 16/09/2013 **End date:** 16/09/2018
Entity: Universidad de Zaragoza
- 8 Name of the course:** Caracterización I: Técnicas físico-químicas
University degree: Máster Universitario en Materiales Nanoestructurados para Aplicaciones Nanotecnológicas
Start date: 21/09/2015 **End date:** 18/09/2016
Entity: Universidad de Zaragoza
- 9 Name of the course:** Física II
University degree: Graduado en Ingeniería de Tecnologías Industriales
Start date: 16/09/2013 **End date:** 14/09/2014
Entity: Universidad de Zaragoza
- 10 Name of the course:** Fundamentos de física
University degree: Graduado en Ingeniería de Tecnologías y Servicios de Telecomunicación
Start date: 17/09/2012 **End date:** 15/09/2013
Entity: Universidad de Zaragoza



Experience supervising doctoral thesis and/or final year projects

- 1** **Project title:** Evolución estructural con la temperatura de cadenas zigzag mediante derivados de terfenilos
Type of project: Proyecto Final de Grado
Co-director of thesis: Lobo Checa, Jorge
Entity: Universidad de Zaragoza **Type of entity:** University
Student: Iván Abadías Arnal
Obtained qualification: Sobresaliente
Date of reading: 14/12/2022
- 2** **Project title:** ON-SURFACE SYNTHESIS OF FUNCTIONAL ORGANIC NANOSTRUCTURES.
Type of project: Doctoral thesis
Co-director of thesis: Langlais , Veronique
Entity: Ministerio de Educación y Cultura **Type of entity:** University
Student: Amelia Domínguez Celorrio
Obtained qualification: Sobresaliente cum laude
Date of reading: 11/02/2022
- 3** **Project title:** Tuning the electronic coupling of chiral graphene nanoribbons using the supporting surface
Type of project: Proyecto Final de Máster
Co-director of thesis: Lobo Checa, Jorge
Entity: Universidad de Zaragoza **Type of entity:** University
Student: Alejandro Berdonces Layunta
Obtained qualification: Sobresaliente
Date of reading: 26/09/2018
- 4** **Project title:** Creating covalent nanostructures for magnetoelectronic applications
Type of project: Proyecto Final de Máster
Co-director of thesis: Lobo Checa, Jorge
Entity: Universidad de Zaragoza **Type of entity:** University
Student: Carlos Casas Carretero
Obtained qualification: Sobresaliente
Date of reading: 15/12/2017
- 5** **Project title:** Rocksalt ionic insulators for atomic scale ferroelectrics
Type of project: Proyecto Final de Máster
Co-director of thesis: Piantek , Marten
Entity: Universidad de Zaragoza **Type of entity:** University
Student: Sonja Schubert
Obtained qualification: Notable
Date of reading: 30/09/2016
- 6** **Project title:** Exploring Complex Magnetism at the Atomic Scale
Type of project: Doctoral thesis
Co-director of thesis: Cr. Cyrus Hirjibehedin
Entity: University College London **Type of entity:** University
Student: José Martínez Castro
Obtained qualification: PASS
Date of reading: 29/07/2016



- 7** **Project title:** Engineering spin structures at the atomic scale
Type of project: Doctoral thesis
Entity: Universidad de Zaragoza **Type of entity:** University
Student: Maria Moro Lagares
Obtained qualification: Sobresaliente cum laude
Date of reading: 10/09/2015
- 8** **Project title:** Ingeniería de estructuras de espín a escala atómica
Type of project: Proyecto Final de Máster
Entity: Universidad de Zaragoza **Type of entity:** University
Student: María Moro Lagares
Obtained qualification: 8.4
Date of reading: 11/07/2011

Scientific and technological experience

Research and development groups/teams

- 1** **Name of the group:** NANOFABRICACIÓN Y MICROSCOPIAS AVANZADAS (NANOMIDAS)
- 2** **Name of the group:** Pertenencia a instituto de investigación universitaria
Affiliation entity: INSTITUTO DE NANOCIENCIA Y MATERIALES DE ARAGÓN (INMA) **Type of entity:** University Research Institute

Scientific or technological activities

R&D projects funded through competitive calls of public or private entities

- 1** **Name of the project:** ULTIMATE-I / ULtra ThIn MAGneto Thermal sEnsor-Ing (H2020 GA nº 101007825)
Geographical area: Non EU International
Entity where project took place: Instituto Universitario de Investigación Mixto de Nanociencia y Materiales de Aragón - Universidad de Zaragoza
Name principal investigator (PI, Co-PI...): Myriam Haydée Aguirre
Nº of researchers: 5
Funding entity or bodies: UNION EUROPEA
Start-End date: 01/09/2021 - 31/08/2025 **Duration:** 4 years
Total amount: 473.800 €
- 2** **Name of the project:** PID2019-107338RB-C64. DISEÑO DE SISTEMAS MOLECULARES CON PRECISION ATOMICA SOBRE CAPAS ULTRA-DELGADAS CON NUEVAS FUNCIONALIDADES EN NANO-ELECTRONICA (DMOLSYS)
Geographical area: National
Entity where project took place: Facultad de Ciencias - Universidad de Zaragoza



Name principal investigator (PI, Co-PI....): David Serrate Donoso; Jorge Lobo Checa

Nº of researchers: 2

Funding entity or bodies:

AGENCIA ESTATAL DE INVESTIGACIÓN

Start-End date: 01/06/2020 - 31/05/2023

Duration: 3 years

Total amount: 127.050 €

3 Name of the project: E13_20R. NANOFABRICACIÓN Y MICROSCOPIAS AVANZADAS (NANOMIDAS)

Geographical area: Regional

Entity where project took place: Facultad de Ciencias - Universidad de Zaragoza

Name principal investigator (PI, Co-PI....): José María de Teresa Nogueras

Nº of researchers: 12

Funding entity or bodies:

GOBIERNO DE ARAGÓN

Start-End date: 01/01/2020 - 31/12/2022

Duration: 3 years

4 Name of the project: FUERZAS Y TUNEL 2018

Geographical area: National

Entity where project took place: Instituto Universitario de Investigación En Nanociencia de Aragón - Universidad de Zaragoza

Name principal investigator (PI, Co-PI....): David Serrate Donoso

Nº of researchers: 4

Funding entity or bodies:

TASAS EXTERNAS

Start-End date: 01/07/2017 - 31/12/2022

Duration: 5 years - 6 months

5 Name of the project: TNSI / Trans-Pyrenean Node for Scientific Instrumentation EFA194/16/TNSI (Cofinanciado al 65% por el Fondo Europeo de Desarrollo Regional a través del Programa Interreg V A España/Francia/Andorra - POCTEFA 2014-2020)

Geographical area: European Union

Entity where project took place: Instituto Universitario de Investigación En Nanociencia de Aragón - Universidad de Zaragoza

Name principal investigator (PI, Co-PI....): David Serrate Donoso

Nº of researchers: 6

Funding entity or bodies:

FONDOS FEDER

Start-End date: 01/02/2018 - 30/06/2021

Duration: 3 years - 5 months

Total amount: 217.863,47 €

6 Name of the project: E13_17R. NANOFABRICACIÓN Y MICROSCOPIAS AVANZADAS (NANOMIDAS)

Geographical area: Regional

Entity where project took place: Facultad de Ciencias - Universidad de Zaragoza

Name principal investigator (PI, Co-PI....): José María de Teresa Nogueras

Nº of researchers: 17

Funding entity or bodies:

GOBIERNO DE ARAGÓN

Start-End date: 01/01/2017 - 31/12/2019

Duration: 3 years

Total amount: 45.730 €



- 7** **Name of the project:** MAT2016-78293-C6-6-R NANOESTRUCTURAS MOLECULARES FUNCIONALES PARA DISPOSITIVOS OPTOELECTRONICOS: CONTROL DE POLARIZACIÓN EN FERROELECTRICOS
Geographical area: National
Entity where project took place: Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): Jorge Lobo Checa
Nº of researchers: 2
Funding entity or bodies: MINECO. MINISTERIO DE ECONOMIA Y COMPETITIVIDAD
Start-End date: 30/12/2016 - 29/12/2019 **Duration:** 3 years
Total amount: 121.000 €
- 8** **Name of the project:** PIE 201860I071. CONSTRUCCIÓN DEL LOGO DEL ICMA MEDIANTE ÁTOMOS INDIVIDUALES
Geographical area: Regional
Entity where project took place: Instituto Universitario de Investigación En Nanociencia de Aragón - Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): David Serrate Donoso
Nº of researchers: 1
Funding entity or bodies: CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS
Start-End date: 22/11/2018 - 21/11/2019 **Duration:** 1 year
Total amount: 5.000 €
- 9** **Name of the project:** FUERZAS Y TÚNEL 2018
Geographical area: Others
Entity where project took place: Instituto Universitario de Investigación En Nanociencia de Aragón - Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): David Serrate Donoso
Nº of researchers: 2
Funding entity or bodies: VICERRECTORADO DE INVESTIGACIÓN. - CONGRESOS
Start-End date: 22/09/2017 - 21/09/2018 **Duration:** 1 year
Total amount: 1.397,59 €
- 10** **Name of the project:** Switching, Anisotropy and Relaxation of Magnetic Molecules
Geographical area: National
Entity where project took place: CSIC
Name principal investigator (PI, Co-PI....): Fernando Bartolomé Usieto
Funding entity or bodies: Ministerio de Economía y Competitividad
Start-End date: 01/01/2015 - 31/12/2017 **Duration:** 3 years
Total amount: 96.800 €
- 11** **Name of the project:** GRUPO CONSOLIDADO E26 MAGNETISMO EN NANOESTRUCTURAS Y SUS APLICACIONES (MAGNA)
Geographical area: Regional
Entity where project took place: Facultad de Ciencias - Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): Manuel Ricardo Ibarra García
Nº of researchers: 32

**Funding entity or bodies:**

DIPUTACIÓN GENERAL DE ARAGÓN

Start-End date: 01/01/2016 - 31/12/2016**Duration:** 1 year**Total amount:** 26.198 €**12 Name of the project:** MAT2013-46593-C6-3-P: HÍBRIDOS COVALENTES EN SUPERFICIES.**Geographical area:** National**Entity where project took place:** Instituto Universitario de Investigación En Nanociencia de Aragón - Universidad de Zaragoza**Name principal investigator (PI, Co-PI....):** David Serrate Donoso**Nº of researchers:** 3**Funding entity or bodies:**

MINECO. MINISTERIO DE ECONOMIA Y COMPETITIVIDAD

Start-End date: 01/01/2014 - 31/12/2016**Duration:** 3 years**Total amount:** 60.253,16 €**13 Name of the project:** GRUPO CONSOLIDADO E26 MAGNETISMO EN NANOESTRUCTURAS**Geographical area:** Regional**Entity where project took place:** Facultad de Ciencias - Universidad de Zaragoza**Name principal investigator (PI, Co-PI....):** Manuel Ricardo Ibarra García**Nº of researchers:** 30**Funding entity or bodies:**

DIPUTACIÓN GENERAL DE ARAGÓN

Start-End date: 01/01/2015 - 31/12/2015**Duration:** 1 year**Total amount:** 21.475 €**14 Name of the project:** UZCUD2014-CIE-16. ESTADOS ELECTRÓNICOS 2-D Y 1-D DE BISMUTO ULTRA-DELGADO CON APLICACIONES EN MAGNETOELECTRÓNICA.**Geographical area:** Others**Entity where project took place:** Instituto Universitario de Investigación En Nanociencia de Aragón - Universidad de Zaragoza**Name principal investigator (PI, Co-PI....):** David Serrate Donoso**Nº of researchers:** 3**Funding entity or bodies:**

CENTRO UNIVERSITARIO DE LA DEFENSA DE ZARAGOZA ACADEMIA GENERAL MILITAR

Start-End date: 01/10/2014 - 30/06/2015**Duration:** 9 months**Total amount:** 2.500 €**15 Name of the project:** JIUZ-2013-CIE-12: OPTIMIZACIÓN DEL TIEMPO DE RELAJACIÓN DE ESPÍN EN IMANES MONOATÓMICOS.**Geographical area:** Others**Entity where project took place:** Instituto Universitario de Investigación En Nanociencia de Aragón - Universidad de Zaragoza**Name principal investigator (PI, Co-PI....):** David Serrate Donoso**Nº of researchers:** 3**Funding entity or bodies:**

UNIVERSIDAD DE ZARAGOZA

Start-End date: 01/01/2014 - 31/12/2014**Duration:** 1 year**Total amount:** 2.500 €



- 16** **Name of the project:** GRUPO CONSOLIDADO E26 MAGNETISMO EN NANOESTRUCTURAS
Geographical area: Regional
Entity where project took place: Facultad de Ciencias - Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): Manuel Ricardo Ibarra García
Nº of researchers: 35
Funding entity or bodies:
DIPUTACIÓN GENERAL DE ARAGÓN
Start-End date: 01/01/2014 - 31/12/2014 **Duration:** 1 year
Total amount: 27.357 €
- 17** **Name of the project:** GRUPO CONSOLIDADO E26 MAGNETISMO EN NANOESTRUCTURAS
Entity where project took place: Facultad de Ciencias - Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): Manuel Ricardo Ibarra García
Nº of researchers: 34
Funding entity or bodies:
DIPUTACIÓN GENERAL DE ARAGÓN
Start-End date: 01/01/2013 - 31/12/2013 **Duration:** 1 year
Total amount: 20.826 €
- 18** **Name of the project:** MAT2010-19236.ENGINEERING SPIN STRUCTURES ON THE ATOMIC SCALE.
Geographical area: National
Entity where project took place: Instituto Universitario de Investigación En Nanociencia de Aragón - Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): David Serrate Donoso
Nº of researchers: 3
Funding entity or bodies:
MINISTERIO DE CIENCIA E INNOVACION
Start-End date: 01/01/2011 - 31/12/2013 **Duration:** 3 years
Total amount: 60.500 €
- 19** **Name of the project:** DESARROLLO Y PUESTA EN MERCADO DE BIOSENSORES INMUNO-MAGNÉTICOS CON CUANTIFICACIÓN MONO Y MÚLTIPLE ANALITO
Geographical area: National
Entity where project took place: Instituto Universitario de Investigación En Nanociencia de Aragón - Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): Javier Sesé Monclús
Nº of researchers: 4
Funding entity or bodies:
MINISTERIO DE CIENCIA E INNOVACIÓN
Start-End date: 01/07/2010 - 31/12/2013 **Duration:** 3 years - 6 months
Total amount: 397.539 €
- 20** **Name of the project:** BIGNSPIN / BISMUTH AND GRAPHENE NANOSTRUCTURES FOR SPINTRONICS
Geographical area: European Union
Entity where project took place: Facultad de Ciencias - Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): Pedro Antonio Algarabel Lafuente; David Serrate Donoso
Nº of researchers: 3
Funding entity or bodies:



UNION EUROPEA

Start-End date: 01/04/2010 - 31/03/2013

Duration: 3 years - 1 hour

Total amount: 45.000 €

21 Name of the project: GRUPO CONSOLIDADO DGA E26 MAGNETISMO EN NANOESTRUCTURAS Y SUS APLICACIONES

Geographical area: Regional

Entity where project took place: Facultad de Ciencias - Universidad de Zaragoza

Name principal investigator (PI, Co-PI....): Manuel Ricardo Ibarra García

Nº of researchers: 41

Funding entity or bodies:

D.G.A.

Start-End date: 01/01/2011 - 31/12/2012

Duration: 2 years

Total amount: 73.859 €

22 Name of the project: AIB2010DE-00290. NANODEPOSITOS MAGNETICOS Y SUPERCONDUCTORES PARA PUNTAS ULTRAFUNCIONALES DE MICROSCOPIA TUNEL

Geographical area: National

Entity where project took place: Facultad de Ciencias - Universidad de Zaragoza

Name principal investigator (PI, Co-PI....): José María de Teresa Nogueras

Nº of researchers: 5

Funding entity or bodies:

MINISTERIO DE CIENCIA E INNOVACION

Start-End date: 01/01/2011 - 31/12/2012

Duration: 2 years

Total amount: 7.200 €

23 Name of the project: RAMON Y CAJAL 2009. PUESTA EN MARCHA

Entity where project took place: Instituto Universitario de Investigación En Nanociencia de Aragón - Universidad de Zaragoza

Name principal investigator (PI, Co-PI....): David Serrate Donoso

Nº of researchers: 1

Funding entity or bodies:

MINISTERIO DE CIENCIA E INNOVACION

Start-End date: 01/12/2009 - 30/11/2011

Duration: 2 years

Total amount: 15.000 €

24 Name of the project: PI046/09. NANOTECNOLOGIA BASADA EN DISPOSITIVOS HIBRIDOS GRAFENO-MATERIALES MAGNETICOS/SUPERCONDUCTORES

Geographical area: Regional

Entity where project took place: Instituto Universitario de Investigación En Nanociencia de Aragón - Universidad de Zaragoza

Name principal investigator (PI, Co-PI....): José María de Teresa Nogueras

Nº of researchers: 9

Funding entity or bodies:

D.G.A.

Start-End date: 01/10/2009 - 30/09/2011

Duration: 2 years

Total amount: 70.000 €



- 25** **Name of the project:** GRUPO EXCELENTE E26 MAGNETISMO EN NANOESTRUCTURAS Y SUS APLICACIONES
Entity where project took place: Facultad de Ciencias - Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): Manuel Ricardo Ibarra García
Nº of researchers: 28
Funding entity or bodies:
D.G.A.
Start-End date: 01/01/2008 - 31/12/2010 **Duration:** 3 years
Total amount: 108.250 €
- 26** **Name of the project:** Characterization of Advanced Magnetic Materials for Spintronics by means of Scanning Tunneling Microscopy
Entity where project took place: University of Hamburg
Name principal investigator (PI, Co-PI....): David Serrate
Funding entity or bodies:
European Commission, 7th Framework Programme
Start-End date: 01/02/2007 - 31/01/2009 **Duration:** 2 years
Total amount: 140.000 €
- 27** **Name of the project:** PROPIEDADES MAGNÉTICAS Y DE TRANSPORTE DE NANOPARTICULAS FERRICAS (HIERRO, SUS ÓXIDOS, BIOFERROFLUIDOS Y FERRITINA)
Geographical area: National
Entity where project took place: Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): Clara Isabel Marquina Garcia
Nº of researchers: 11
Funding entity or bodies:
M.E.C.
Start-End date: 31/12/2005 - 31/12/2008 **Duration:** 3 years - 1 day
Total amount: 263.350 €
- 28** **Name of the project:** Competitive contact-Less Positoin Sensor Based on Magnetoresistive Nanocontacts (STREP-MUNDIS)
Geographical area: European Union
Entity where project took place: Universidad de Zaragoza, OPE
Name principal investigator (PI, Co-PI....): Ricardo Ibarra García
Funding entity or bodies:
European Commission, 6th FP
Start-End date: 01/11/2005 - 01/05/2008 **Duration:** 2 years - 6 months - 1 day
- 29** **Name of the project:** NAN2006-26646-E. COMPETITIVE CONTACT-LESS POSITION SENSOR BASED ON MAGNETORSISTIVE NANO-CONTACTS.
Entity where project took place: Facultad de Ciencias - Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): Manuel Ricardo Ibarra García
Nº of researchers: 6
Funding entity or bodies:
MINISTERIO DE EDUCACION Y CIENCIA
Start-End date: 13/12/2006 - 30/04/2008 **Duration:** 1 year - 4 months - 19 days
Total amount: 85.000 €



- 30** **Name of the project:** GRUPO EXCELENTE E26 MAGNETISMO DE SOLIDOS
Entity where project took place: Escuela de Ingeniería y Arquitectura - Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): José Ignacio Araudas Pontaque
Nº of researchers: 21
Funding entity or bodies:
D.G.A.
Start-End date: 01/01/2005 - 31/12/2007 **Duration:** 3 years
Total amount: 74.582,87 €
- 31** **Name of the project:** Nanopartículas Magnéticas y su adaptación para aplicaciones biomédicas (NAMESBI)
Geographical area: National
Entity where project took place: Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): Ricardo Ibarra García
Funding entity or bodies:
Ministerio de Ciencia y Tecnología, Acciones estratégicas
Start-End date: 01/01/2004 - 31/12/2007 **Duration:** 4 years
- 32** **Name of the project:** ESTUDIO DE SISTEMAS MAGNETORRESISTIVOS DE ALTO INTERÉS EN MAGNETOELECTRÓNICA
Geographical area: National
Entity where project took place: Facultad de Ciencias - Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): José María de Teresa Nogueras
Nº of researchers: 7
Funding entity or bodies:
CICYT-COMISION INTERMINISTERIAL DE CIENCIA Y TECNOLOGIA
Start-End date: 03/03/2003 - 02/06/2006 **Duration:** 3 years - 3 months
Total amount: 220.600 €
- 33** **Name of the project:** Spin, charge and Orbital Ordering in Complex Transition Metal Oxides: an integrated synthesis and measurement approach (SCOOTMO)
Geographical area: European Union
Entity where project took place: CSIC
Name principal investigator (PI, Co-PI....): Clara Isabel Marquina García
Funding entity or bodies:
European Commission, 5th FP
Start-End date: 01/10/2002 - 30/04/2006 **Duration:** 3 years - 7 months
- 34** **Name of the project:** Nueva Herramienta in-vitro de alta sensibilidad basada en detección cuantitativa de nanopartículas magnéticas
Geographical area: National
Entity where project took place: Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): Ricardo Ibarra García
Funding entity or bodies:
PROFIT del Ministerio de Ciencia y Tecnología
Start-End date: 01/01/2005 - 12/12/2005 **Duration:** 11 months - 12 days



- 35** **Name of the project:** Spin Dependent Transport in Magnetic Nanostructures
Geographical area: Non EU International
Entity where project took place: CSIC
Name principal investigator (PI, Co-PI....): Jose María de Teresa Nogueras
Funding entity or bodies:
CSIC and Japanese Society for Promotion of Science
Start-End date: 01/01/2004 - 31/12/2004 **Duration:** 1 year
- 36** **Name of the project:** GRUPO CONSOLIDADO E26 MAGNETISMO DE SOLIDOS
Geographical area: Regional
Entity where project took place: Facultad de Ciencias - Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): José Ignacio Arnaudas Pontaque; Agustín Moral Gámiz del
Nº of researchers: 18
Funding entity or bodies:
D.G.A.
Start-End date: 01/01/2003 - 31/12/2004 **Duration:** 2 years
Total amount: 40.959,06 €
- 37** **Name of the project:** Fabrication of non-volatile memories based on magnetic tunnel junctions
Geographical area: European Union
Entity where project took place: CSIC
Name principal investigator (PI, Co-PI....): José María de Teresa Nogueras
Funding entity or bodies:
Acciones integradas del Ministerio de Ciencia y Tecnología
Start-End date: 01/01/2003 - 31/12/2004 **Duration:** 2 years
- 38** **Name of the project:** REALIZACIÓN DE UNA MEMORIA MAGNÉTICA DE ACCESO ALEATORIO BASADA EN UNIONES TÚNEL MAGNÉTICAS
Geographical area: Regional
Entity where project took place: Facultad de Ciencias - Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): José María de Teresa Nogueras
Nº of researchers: 3
Funding entity or bodies:
D.G.A.
Start-End date: 14/11/2002 - 31/12/2003 **Duration:** 1 year - 1 month - 17 days
Total amount: 7.000 €
- 39** **Name of the project:** Advanced Magnetic Oxides for Responsive Engineering (AMORE)
Geographical area: European Union
Entity where project took place: Universidad de Zaragoza, OPE
Name principal investigator (PI, Co-PI....): Ricardo Ibarra García
Funding entity or bodies:
European Commission, 5th FP
Start-End date: 01/03/2000 - 01/09/2003 **Duration:** 3 years - 6 months - 1 day



R&D non-competitive contracts, agreements or projects with public or private entities

- 1 Name of the project:** UCL Impact Studentship with SPECS & LMA
Geographical area: European Union
Entity where project took place: University College London
Name principal investigator (PI, Co-PI....): David Serrate Donoso; Cyrus F. Hijibehedin
Funding entity or bodies:
SPECS Surface Nano Analysis GmbH
Start date: 01/03/2013 **Duration:** 3 years - 3 months
Total amount: 44.256 €
- 2 Name of the project:** INVESTIGACION DE PASTAS MAGNETORRESISTIVAS
Entity where project took place: Facultad de Ciencias - Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): Manuel Ricardo Ibarra García
Nº of researchers: 6
Funding entity or bodies:
ARAGONESA DE COMPONENTES PASIVOS, S.A.
Start date: 13/05/2004 **Duration:** 1 year - 2 months - 3 days
- 3 Name of the project:** INVESTIGACION DE PASTAS MAGNETORRESISTIVAS
Entity where project took place: Facultad de Ciencias - Universidad de Zaragoza
Name principal investigator (PI, Co-PI....): Manuel Ricardo Ibarra García
Nº of researchers: 6
Funding entity or bodies:
ARAGONESA DE COMPONENTES PASIVOS, S.A.
Start date: 15/05/2002 **Duration:** 2 years

Results

Industrial and intellectual property

- 1 Title registered industrial property:** APARATO PARA EL ANÁLISIS Y CUANTIFICACIÓN DE LA CONCENTRACIÓN DE ANALITO PRESENTE EN UNA MUESTRA USANDO SENSORES MAGNETORRESISTIVOS
Type of industrial property: Patent of invention
Inventors/authors/obtainers: IBARRA GARCÍA, MANUEL RICARDO; DE TERESA NOGUERAS, JOSÉ MARÍA; SESÉ MONCLÚS, JAVIER; MARQUINA GARCIA, CLARA ISABEL; SERRATE DONOSO, DAVID; SAUREL, DAMIEN
Nº of application: P200603259
Date of register: 2006
Licences: No
- 2 Title registered industrial property:** FARMACOTERAPIA PARENTERAL FOCALIZADA MEDIANTE EL IMPLANTE DE IMANES PERMANENTES EN LOS ÓRGANOS DIANA
Type of industrial property: Patent of invention



Inventors/authors/obtainers: IBARRA GARCÍA, MANUEL RICARDO; MARQUINA GARCIA, CLARA ISABEL; VALDIVIA URIA, JOSE GABRIEL; FERNÁNDEZ-PACHECO CHICÓN, RODRIGO; SERRATE DONOSO, DAVID

Nº of application: P200302803

Date of register: 2003

Licences: No

Scientific and technological activities

Scientific production

Publications, scientific and technical documents

- 1** Ruiz del Árbol, Nerea; Sánchez-Sánchez, Carlos; Martínez, José I.; Rodríguez, Luis; Serrate, David; Verdini, Alberto; Floreano, Luca; Jacobson, Peter; Grill, Leonhard; Martín-Gago, José A.; López, María F. On-surface synthesis of metal-organic frameworks: the critical role of the reaction conditions. CHEMICAL COMMUNICATIONS. 2023. ISSN 1359-7345
DOI: 10.1039/D3CC00185G
Type of production: Scientific paper
- 2** Domínguez-Celorrío, A.; Garcia-Fernandez, C.; Quiroga, S.; Koval, P.; Langlais, V.; Peña, D.; Sánchez-Portal, D.; Serrate, D.; Lobo-Checa, J. On-surface synthesis of Mn-phthalocyanines with optically active ligands; 35608129. NANOSCALE. 22, pp. [9 pp.]. 2022. ISSN 2040-3364
DOI: 10.1039/d2nr00721e
Type of production: Scientific paper
- 3** Hernández López, L.; Piquero-Zulaica, I.; Downing, C.A.; Piantek, M.; Fujii, J.; Serrate, D.; Ortega, J.E.; Bartolomé, F.; Lobo Checa, J. Searching for kagome multi-bands and edge states in a predicted organic topological insulator. NANOSCALE. 13 - 10, pp. 5216 - 5223. 2021. ISSN 2040-3364
DOI: 10.1039/d0nr08558h
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 8.307
Impact source: SCOPUS
Impact index in year of publication: 1.744
Impact source: SCOPUS (CITESCORE)
Impact index in year of publication: 13.400
- 4** Domínguez-Celorrío, A.; Vilas-Varela, M.; Peña, D.; Langlais, V.; Serrate, D. Symmetry-Driven Formation of Chiral Boroxine-Based Organometallic Oligomers on Ag(001). JOURNAL OF PHYSICAL CHEMISTRY C. 125 - 3, pp. 2015 - 2021. 2021. ISSN 1932-7447
DOI: 10.1021/acs.jpcc.0c08039
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 4.177
Impact source: SCOPUS



Impact index in year of publication: 1.103

Impact source: SCOPUS (CITESCORE)

Impact index in year of publication: 7.000

- 5** Kim, K.H.; He, H.; Rodner, M.; Yakimova, R.; Larsson, K.; Piantek, M.; Serrate, D.; Zakharov, A.; Kubatkin, S.; Eriksson, J.; Lara-Avila, S. Chemical Sensing with Atomically Thin Platinum Templated by a 2D Insulator. *ADVANCED MATERIALS INTERFACES*. pp. 1902104 [7 pp]. 2020. ISSN 2196-7350

DOI: 10.1002/admi.201902104

Type of production: Scientific paper

Impact source: ISI

Impact index in year of publication: 6.147

Impact source: SCOPUS

Impact index in year of publication: 1.671

- 6** Coffey, David; de la Fuente, César; Ciria, Miguel; Serrate, David; Loth, Sebastian; Arnaudás, José Ignacio. Mixed 4f population of Tm adatoms on insulating Cu₂N islands. *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*. 22 - 1, pp. 196 - 202. 2020. ISSN 1463-9076

DOI: 10.1039/c9cp04413b

Type of production: Scientific paper

Impact source: ISI

Impact index in year of publication: 3.676

Impact source: SCOPUS

Impact index in year of publication: 1.052

- 7** Ruiz del Árbol, N.; Sánchez-Sánchez, C.; Otero-Irurueta, G.; Martínez, J.I.; de Andrés, P.L.; Gómez-Herrero, A.C.; Merino, P.; Piantek, M.; Serrate, D.; Lacovig, P.; Lizzit, S.; Alemán, J.; Ellis, G.J.; López, M.F.; Martín-Gago, J.A. On-Surface Driven Formal Michael Addition Produces m-Polyaniline Oligomers on Pt(111). *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*. 59 - 11, pp. 23220 - 23227. 2020. ISSN 1433-7851

DOI: 10.1002/anie.202009863

Type of production: Scientific paper

Impact source: ISI

Impact index in year of publication: 15.336

Impact source: SCOPUS

Impact index in year of publication: 5.831

- 8** del Arbol, N.R.; Palacio, I.; Sanchez-Sanchez, C.; Otero-Irurueta, G.; Martinez, J.I.; Rodriguez, L.; Serrate, D.; Cossaro, A.; Lacovig, P.; Lizzit, S.; Verdini, A.; Floreano, L.; Martin-Gago, J.A.; Lopez, M.F. Role of the Metal Surface on the Room Temperature Activation of the Alcohol and Amino Groups of p-Aminophenol. *JOURNAL OF PHYSICAL CHEMISTRY C*. 124 - 36, pp. 19655 - 19665. 2020. ISSN 1932-7447

DOI: 10.1021/acs.jpcc.0c06101

Type of production: Scientific paper

Impact source: ISI

Impact index in year of publication: 4.126

Impact source: SCOPUS

Impact index in year of publication: 1.401

- 9** Moro-Lagares, María; Korytar, Richard; Piantek, Marten; Robles, Roberto; Lorente, Nicolás; Pascual, José I.; Ibarra, M. Ricardo; Serrate, David. Real space manifestations of coherent screening in atomic scale Kondo lattices. NATURE COMMUNICATIONS. 10, pp. 2211 [9 pp.]. 2019. ISSN 2041-1723
DOI: 10.1038/s41467-019-10103-5
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 12.121
Impact source: SCOPUS
Impact index in year of publication: 5.569
- 10** Martinez-Castro, Jose; Piantek, Marten; Schubert, Sonja; Persson, Mats; Serrate, David; Hirjibehedin, Cyrus F. Electric polarization switching in an atomically thin binary rock salt structure. NATURE NANOTECHNOLOGY. 13, pp. 19 - 23. 2018. ISSN 1748-3387
DOI: 10.1038/s41565-017-0001-2
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 33.407
Impact source: SCOPUS
Impact index in year of publication: 17.049
- 11** Kügel, Jens; Hsu, Pin-Jui; Böhme, Markus; Schneider, Kathrin; Senkpiel, Jacob; Serrate, David; Bode, Matthias; Lorente, Nicolás. Jahn-Teller Splitting in Single Adsorbed Molecules Revealed by Isospin-Flip Excitations. PHYSICAL REVIEW LETTERS. 121 - 22, pp. 226402 [6 pp.]. 2018. ISSN 0031-9007
DOI: 10.1103/PhysRevLett.121.226402
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 9.227
Impact source: SCOPUS
Impact index in year of publication: 3.571
- 12** Moro-Lagares, M.; Fernandez, J.; Roura-Bas, P.; Ibarra, M.R.; Aligia, A.A.; Serrate, D. Quantifying the leading role of the surface state in the Kondo effect of Co/Ag(111). PHYSICAL REVIEW B. 97 - 23, pp. 235442 [9 pp.]. 2018. ISSN 2469-9950
DOI: 10.1103/PhysRevB.97.235442
Type of production: Scientific paper
Impact source: SCOPUS
Impact index in year of publication: 1.502
- 13** Kügel, Jens; Karolak, Michael; Krönlein, Andreas; Serrate, David; Bode, Matthias; Sangiovanni, Giorgio. Reversible magnetic switching of high-spin molecules on a giant Rashba surface. NPJ QUANTUM MATERIALS. 3, pp. 53 [7 pp.]. 2018. ISSN 2397-4648
DOI: 10.1038/s41535-018-0126-z
Type of production: Scientific paper
- 14** Martínez Velarte, Maria del Carmen; Kretz, Bernhard; Moro-Lagares, María; Aguirre, Myriam Haydee; Riedemann, Trevor M.; Lograsso, Thomas A.; Morellon, Luis; Ibarra, M Ricardo; Garcia-Lekue, Aran; Serrate, David. Chemical disorder in topological insulators: A route to magnetism tolerant Topological surface States. NANO LETTERS. 17 - 7, pp. 4047 - 4054. 2017. ISSN 1530-6984

DOI: 10.1021/acs.nanolett.7b00311
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 12.080

Impact source: SCOPUS
Impact index in year of publication: 7.447

- 15** Fernández, Joaquín; Moro-Lagares, María; Serrate, David; Aligia, Alberto A. Manipulation of the surface density of states of Ag(111) by means of resonators. Experiment and theory. PHYSICAL REVIEW B. 94, pp. 075408 [8 pp.]. 2016. ISSN 1098-0121

DOI: 10.1103/PhysRevB.94.075408
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 3.836

Impact source: SCOPUS
Impact index in year of publication: 2.339

- 16** Serrate, D.; Yoshida, Y.; Moro-Lagares, M.; Kubetzka, A.; Wiesendanger, R. Spin-sensitive shape asymmetry of adatoms on noncollinear magnetic substrates. PHYSICAL REVIEW B. 93 - 12, pp. 125424 [6 pp.]. 2016. ISSN 1098-0121

DOI: 10.1103/PhysRevB.93.125424
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 3.836

Impact source: SCOPUS
Impact index in year of publication: 2.339

- 17** Coffey, David; Díez-Ferrer, José Luis; Serrate, David; Ciria, Miguel; de la Fuente, César; Arnaudas, José Ignacio. Antiferromagnetic Spin Coupling between Rare Earth Adatoms and Iron Islands Probed by Spin-Polarized Tunneling. SCIENTIFIC REPORTS. 5, pp. 13709 [7 pp.]. 2015. ISSN 2045-2322

DOI: 10.1038/srep13709
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 5.228

Impact source: SCOPUS
Impact index in year of publication: 2.034

- 18** Oberg, J. C.; Reyes Calvo, M.; Delgado, F.; Moro-Lagares, M.; Serrate, D.; Jacob, D.; Fernández-Rossier, J.; Hirjibehedin, C. F. Control of single-spin magnetic anisotropy by exchange coupling. NATURE NANOTECHNOLOGY. 9 - 1, pp. 64 - 68. 2014. ISSN 1748-3387

DOI: 10.1038/nnano.2013.264
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 34.048



- 19** Serrate Donoso, David; Moro-Lagares, María; Piantek, Marten; Pascual, Jose I.; Ibarra, M. Ricardo. Enhanced Hydrogen Dissociation by Individual Co Atoms Supported on Ag(111). JOURNAL OF PHYSICAL CHEMISTRY C. 118 - 11, pp. 5827 - 5832. 2014. ISSN 1932-7447
DOI: 10.1021/jp411860b
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 4.772
- 20** Piantek, M.; Serrate, D.; Moro-Lagares, M.; Algarabel, P.; Pascual, J. I.; Ibarra, M. R. Manganese phthalocyanine derivatives synthesized by on-surface cyclotetramerization. JOURNAL OF PHYSICAL CHEMISTRY C. 118 - 31, pp. 17895 - 17899. 2014. ISSN 1932-7447
DOI: 10.1021/jp506652j
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 4.772
- 21** Yoshida, Yasuo; Schröder, Silke; Ferriani, Paolo; Serrate, David; Kubetzka, Andre; Menzel, Mathias; Wiesendanger, Roland. Conical spin-spiral state in an ultra-thin film driven by higher-order spin interactions. PHYSICAL REVIEW LETTERS. 108 - 8, pp. 087205. 2012. ISSN 0031-9007
DOI: 10.1103/PhysRevLett.108.087205
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 7.943
- 22** Marquina, C.; de Teresa, J. M.; Serrate, D.; Marzo, J.; Cardoso, F. A.; Saurel, D.; Cardoso, S.; Freitas, P. P.; Ibarra, M. R. GMR sensors and magnetic nanoparticles for immuno-chromatographic assays. JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. 324 - 21, pp. 3495 - 3498. 2012. ISSN 0304-8853
DOI: 10.1016/j.jmmm.2012.02.074
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 1.826
- 23** Serrate, D.; de Teresa, J. M.; Marquina, C.; Marzo, J.; Saurel, D.; Cardoso, F. A.; Cardoso, S.; Freitas, P. P.; Ibarra, M. R. Quantitative biomolecular sensing station based on magnetoresistive patterned arrays. BIOSENSORS & BIOELECTRONICS. 35 - 1, pp. 206 - 212. 2012. ISSN 0956-5663
DOI: 10.1016/j.bios.2012.02.048
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 5.437
- 24** Von Bergmann, Kirsten; Menzel, Mathias; Serrate, David; Schröder, Silke; Ferriani, Paolo; Kubetzka, André; Wiesendanger, Roland; Heinze, Stefan. Tunneling anisotropic magnetoresistance on the atomic scale. PHYSICAL REVIEW B. 86 - 13, pp. 134422. 2012. ISSN 1098-0121
DOI: 10.1103/PhysRevB.86.134422
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 3.767



- 25** Olle, M.; Ceballos, G.; Serrate, D.; Gambardella, P. Yield and shape selection of graphene nanoislands grown on Ni(111). *NANO LETTERS*. 12 - 9, pp. 4431 - 4436. 2012. ISSN 1530-6984
DOI: 10.1021/nl300897m
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 13.025
- 26** Albertini, Franca; Serrate, David; Algarabel, Pedro A. Reverse magnetostructural transitions by Co and in doping NiMnGa alloys: Structural, magnetic, and magnetoelastic properties. *MATERIALS SCIENCE FORUM*. 684, pp. 151 - 163. 2011. ISSN 0255-5476
DOI: 10.4028/www.scientific.net/MSF.684.151
Type of production: Scientific paper
- 27** Serrate, D.; Ferriani, P.; Yoshida, Y.; Hla, S. -.; Menzel, M.; Von Bergmann, K.; Heinze, S.; Kubetzka, A.; Wiesendanger, R. Imaging and manipulating the spin direction of individual atoms. *NATURE NANOTECHNOLOGY*. 5 - 5, pp. 350 - 353. 2010. ISSN 1748-3387
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 30.324
- 28** Teresa, J. M. de; Serrate, D.; Cordoba, R.; Yusuf, S. M. Correlation between the Synthesis Conditions and the Compositional and Magnetic Properties of Co₂(Cr_{1-x}Fe_x)Al Heusler Alloys. *JOURNAL OF ALLOYS AND COMPOUNDS*. 450 - 1-2, pp. 31 - 38. 2008. ISSN 0925-8388
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 1.510
- 29** Przewoznik, J.; Tyliszczak, T.; Rybicki, D.; Sukrowski, J.; Szczerba, W.; Sikora, M.; Kapusta, Cz.; Stepankova, H.; Pacheco, Rf.; Serrate, David; Ibarra, Mr. Structural, magnetic and electronic properties of surface oxidised Fe nanoparticles. *SOLID STATE PHENOMENA*. 140, pp. 47 - 54. 2008. ISSN 1012-0394
DOI: 10.4028/www.scientific.net/ssp.140.47
Type of production: Scientific paper
- 30** Serrate, D.; Teresa, J. M. de; Algarabel, P. A.; Galibert, J.; Ritter, C.; Blasco, J.; Ibarra, M. R. Colossal Magnetoresistance in Ca_xSr_{2-x}FeReO₆ Double Perovskites due to Field-Induced Phase Coexistence. *PHYSICAL REVIEW B*. 75 - 16, pp. 165109. 2007. ISSN 1098-0121
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 3.172
- 31** Serrate, D.; Teresa Noguerras, Jose María de; Ibarra, M. R. Double Perovskites with Ferromagnetism Above Room Temperature. *JOURNAL OF PHYSICS CONDENSED MATTER*. 19 - 2, pp. 363 - 367. 2007. ISSN 0953-8984
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 1.886
- 32** Michalik, J. M.; de Teresa, J. M.; Ritter, C.; Blasco, J.; Serrate, D.; Ibarra, M. R.; Kapusta, C.; Freudenberger, J.; Kozlova, N. High-Field Magnetization Measurements in Sr₂CrReO₆ Double Perovskite: Evidence for Orbital Contribution to the Magnetization. *EUROPHYSICS LETTERS*. 78 - 1, pp. 17006. 2007. ISSN 0295-5075



Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 2.206

- 33** Serrate, David; de Teresa, J.M.; Algarabel, P.A.; Marquina, C.; Blasco, J.; Ibarra, M.R.; Galibert, J. Magnetoelastic coupling in $\text{Sr}_2(\text{Fe}_{1-x}\text{Cr}_x)\text{ReO}_6$ double perovskites. JOURNAL OF PHYSICS CONDENSED MATTER. 19, pp. 436226. 2007. ISSN 0953-8984
DOI: 10.1088/0953-8984/19/43/436226
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 1.886
- 34** Serrate, D.; Teresa Nogueras, Jose María de; Cordoba, R.; Yusuf, S. M. Magnetoresistance and Magnetostriction of $\text{Co}_2\text{Cr}_0.6\text{Fe}_0.4\text{Al}$ Heusler Alloy. SOLID STATE COMMUNICATIONS. 142 - 6, pp. 363 - 367. 2007. ISSN 0038-1098
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 1.535
- 35** Teresa, J.M.de; Fernandez-Pacheco, A; Morellon, L; Orna, J; Pardo, J.A; Serrate, D; Algarabel, P.A; Ibarra, M.R. Magnetotransport Properties of Fe_3O_4 Thin Films for Applications in Spin Electronics. MICROELECTRONIC ENGINEERING. 84 - 5-8, pp. 1660 - 1664. 2007. ISSN 0167-9317
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 1.503
- 36** Michalik, J. M.; de Teresa, J. M.; Serrate, D.; Blasco, J.; Ibarra, M. R. Steric Effects and Electron Doping in $\text{Sr}_2\text{CrReO}_6$ Double-Perovskite Oxides. JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. 316 - 2, pp. 413 - 416. 2007. ISSN 0304-8853
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 1.704
- 37** Algarabel, Pedro Antonio; del Moral, Agustín; Serrate, David; Martín, Carlos; Tokarz, Waldemar. Long-Pulse Magnetic Field Facility at Zaragoza. JOURNAL OF PHYSICS: CONFERENCE SERIES. 51, pp. 607 - 610. 2006. ISSN 1742-6588
DOI: 10.1088/1742-6596/51/1/139
Type of production: Scientific paper
- 38** Yusuf, S. M.; de Teresa, J. M.; Ritter, C.; Serrate, D.; Ibarra, M. R.; Yakhmi, J. V.; Sahni, V. C. Possible quantum critical point in $(\text{La}_{1-x}\text{Dy}_x)(0.7)\text{Ca}_0.3\text{MnO}_3$. PHYSICAL REVIEW B. 74 - 14, pp. 144427. 2006. ISSN 1098-0121
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 3.107
- 39** Fernández-Pacheco, R.; Ibarra, M.R.; Valdivia, J.G.; Marquina, C.; Serrate, D.; Romero, M.S.; Gutiérrez, M.; Arbiol, J. Carbon coated magnetic nanoparticles for local drug delivery using magnetic implants. NANOTECHNOLOGY. 1 - 3, pp. 300 - 303. 2005. ISSN 1551-1286

DOI: 10.1007/s12030-005-0051-7

Type of production: Scientific paper

- 40** de Teresa, J.M; Marquina, C; Serrate, D; Fernandez Pacheco, R; Morellon, L; Algarabel, P.A; Ibarra, M.R.From Magnetoelctronic to Biomedical Applications Based on the Nanoscale Properties of Advanced Magnetic Materials. INTERNATIONAL JOURNAL OF NANOTECHNOLOGY. 2 - 1-2, pp. 3 - 22. 2005. ISSN 1475-7435
Type of production: Scientific paper
- 41** Serrate, D; de Teresa, J.M; Algarabel, P.A; Marquina, C; Morellon, L; Blasco, J; Ibarra, M.R.Giant Magneto Striction in Ca_2fere_6 Double Perovskite. JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. 290, pp. 843 - 845. 2005. ISSN 0304-8853
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 0.985
- 42** Serrate, D; Teresa, J.M.de; Algarabel, P.A; Fernandez Pacheco, R; Galibert, J; Ibarra, M.R.Grain-Boundary Magnetoresistance up to 42 T in Cold-Pressed Fe_3o_4 Nanopowders. JOURNAL OF APPLIED PHYSICS. 97 - 8, pp. 103 - 128. 2005. ISSN 0021-8979
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 2.498
- 43** Serrate, D.; de Teresa, J. M.; Algarabel, P. A.; Ibarra, M. R.; Galibert, J.Intergrain Magnetoresistance up to 50 T in the Half-Metallic $(\text{Ba}_{0.8}\text{sr}_{0.2})_2\text{Femoo}_6$ Double Perovskite: Spin-Glass Behavior of the Grain Boundary. PHYSICAL REVIEW B. 71 - 10, pp. 453 - 462. 2005. ISSN 1098-0121
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 3.185
- 44** de Teresa, J. M.; Serrate, D.; Ritter, C.; Blasco, J.; Ibarra, M. R.; Morellon, L.; Tokarz, W.Investigation of the High Curie Temperature in Sr_2cree_6 . PHYSICAL REVIEW B. 71 - 9, pp. 182 - 189. 2005. ISSN 1098-0121
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 3.185
- 45** Teresa, J.M. de; Serrate, D.; Blasco, J.; Ibarra, M.R.; Morellon, L.Large magnetoresistance in $(\text{AA prime})_2\text{FeReO}_6$ double perovskites. JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. 290-291 PART 2, pp. 1043 - 1049. 2005. ISSN 0304-8853
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 0.985
- 46** Serrate, D.; de Teresa, J. M.; Blasco, J.; Morellon, L.; Ibarra, M. R.Properties of Half Metallic $(\text{Ba}_{0.8}\text{sr}_{0.2})(2-X)\text{La}_{-2x/3}\text{X}/3\text{femoo}_6$ Double Perovskites. JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. 290, pp. 1021 - 1024. 2005. ISSN 0304-8853
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 0.985



- 47** Teresa, J. M. de; Serrate, D.; Blasco, J.; Ibarra, M. R.; Morellon, L. Impact of Cation Size on Magnetic Properties of $(Aa^{(+)})_2$ Fereoo6 Double Perovskites. PHYSICAL REVIEW B. 69 - 14, pp. 6127 - 6137. 2004. ISSN 1098-0121
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 3.075
- 48** Serrate, D.; Teresa, J. M. de; Blasco, J.; Ibarra, M. R.; Morellon, L.; Ritter, C. Increase of Curie Temperature in Fixed Ionic Radius $Ba_{1+x}Sr_{1-3x}La_2Fe_{m+6}$ Double Perovskites. EUROPEAN PHYSICAL JOURNAL B. 39 - 1, pp. 35 - 40. 2004. ISSN 1434-6028
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 1.426
- 49** Zajac, D.; Kapusta, C.; Riedi, P. C.; Sikora, M.; Oates, C. J.; Rybicki, D.; Blasco, J.; Serrate, D.; Teresa, J. M. de; Ibarra, M. R. Nmr and X-Mcd Study of $Sr_{1-3x}Ba_{1+x}La_2Fe_{m+6}$. JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. 272-76, pp. 1756 - 1758. 2004. ISSN 0304-8853
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 1.031
- 50** Zajac, D.; Kapusta, C.; Riedi, P. C.; Sikora, M.; Oates, C. J.; Rybicki, D.; de Teresa, J. M.; Serrate, D.; Marquina, C.; Ibarra, M. R. Nmr Study of $(Sr, Ba, La)_2Fe_{1+y}Mo_{1-y}O_6$ Double Perovskites. ACTA PHYSICA POLONICA A. 106 - 5, pp. 759 - 765. 2004. ISSN 0587-4246
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 0.495
- 51** Gabillet, L.; Diouf, B; Bobo, Jf; Serrate, David; de Teresa, Jm. Spin-dependent tunneling in magnetic tunnel junctions with Al_2O_3 , MgO and NiO and hybrid structures. JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS. 272, pp. e1525 - e1526. 2004. ISSN 0304-8853
DOI: 10.1016/j.jmmm.2003.12.1056
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 1.031
- 52** Ritter, C.; Blasco, J.; Teresa, J. M. de; Serrate, D.; Morellon, L.; Garcia, J.; Ibarra, M. R. Structural and Magnetic Details of 3d-Element Doped $Sr_{2-x}Fe_{0.75}Tm_{0.25}O_6$. SOLID STATE SCIENCES. 6 - 5, pp. 419 - 431. 2004. ISSN 1293-2558
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 1.598
- 53** Boubeta, C.M; de Teresa, J.M; Costa-Kramer, J.L; Anguita, J; Serrate, D; Arnaud, J.I; Ibarra, M.R; Cebollada, A; Briones, F. Magnetic Coupling in Epitaxial $Tm/MgO/Fe(001)$ ($Tm = FeCo, Fe/Co, Fe$) Macroscopic and Microscopic Trilayers. JOURNAL OF APPLIED PHYSICS. 94 - 6, pp. 4006 - 4012. 2003. ISSN 0021-8979
Type of production: Scientific paper
Impact source: ISI



Impact index in year of publication: 2.171

- 54** Serrate, D.; de Teresa, J. M.; Blasco, J.; Ibarra, M. R.; Morellon, L.; Ritter, C. Large low-field magnetoresistance and TC in polycrystalline $(\text{Ba}_{0.8}\text{Sr}_{0.2})_{2-x}\text{La}_x\text{FeMoO}_6$ double perovskites. APPLIED PHYSICS LETTERS. 80 - 24, pp. 4573 - 4575. 2002. ISSN 0003-6951
DOI: 10.1063/1.1485119
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 4.207
- 55** Blasco, J.; Ritter, C.; Morellon, L.; Algarabel, P. A.; de Teresa, J. M.; Serrate, D.; Garcia, J.; Ibarra, M. R. Structural, magnetic and transport properties of $\text{Sr}_2\text{Fe}_{1-x}\text{Cr}_x\text{MoO}_6$. SOLID STATE SCIENCES. 4 - 5, pp. 651 - 660. 2002. ISSN 1293-2558
DOI: 10.1016/S1293-2558(02)01309-2
Type of production: Scientific paper
Impact source: ISI
Impact index in year of publication: 1.667
- 56** Coffey, David; Arnaud, José I.; Serrate, David; Ciria, Miguel. Tm on W(110): A Growth Study by Scanning Tunneling Microscopy. EPITAXY. pp. 93 - 109. IntechOpen Ltd., 2018. ISBN 978-953-51-3889-1
Type of production: Book chapter

Works submitted to national or international conferences (only as invited talk or organizing committee, see complete list at Annex I)

- 1** **Title of the work:** CONTROL KNOBS TO DESIGN ATOMIC SCALE SPINTRONIC DEVICES'
Name of the conference: Dvorak Lectures
Geographical area: European Union
Type of participation: Participatory - invited/keynote talk
City of event: Prague, Czech Republic
Date of event: 17/10/2022
Serrate Donoso, David.
- 2** **Title of the work:** Organizacion del TrNano2021
(<https://www.tnsi-poctefa.eu/trnano2021-ready-steady-and-go/>)
Name of the conference: Transpyrinean Nanotechnology Workshop 2021 (TrNano2021)
Geographical area: European Union
Type of participation: Organizational - Scientific and organizing committee
City of event: Zaragoza, Spain
Date of event: 07/04/2021
Serrate Donoso, David.
- 3** **Title of the work:** Yes, this is the spin
Name of the conference: YES, THOSE ARE THE ATOMS: 35 YEARS OF STM IN SPAIN
Geographical area: National
Type of participation: Participatory - invited/keynote talk
City of event: Madrid, Spain
Date of event: 24/10/2019
Serrate Donoso, David.



- 4** **Name of the conference:** Fuerzas y Túnel. 2018
Geographical area: National
Type of participation: Organizational - Scientific and organizing committee
City of event: Jaca, Spain
Date of event: 27/06/2018
Serrate Donoso, David.
- 5** **Title of the work:** Design and characterization of spin textures in reciprocal and real space
Name of the conference: TOCOTRONICS: SFB 1170 Colloquium
Geographical area: European Union
Type of participation: Participatory - invited/keynote talk
City of event: Würzburg, Germany
Date of event: 25/01/2018
Serrate Donoso, David.
- 6** **Title of the work:** Individual Spin Engineering on Functional Surfaces
Name of the conference: Workshop on 2D Materials and Interfaces for Spintronics
Geographical area: Non EU International
Type of participation: Participatory - invited/keynote talk
City of event: Barcelona, Spain
Date of event: 23/10/2017
Serrate Donoso, David.
- 7** **Title of the work:** Scanning Microscopy: AFM, STM
Name of the conference: NanoValid Training Workshop Advanced Characterisation of Nanomaterials
Geographical area: European Union
Type of participation: Participatory - invited/keynote talk
City of event: Zaragoza, Spain
Date of event: 16/09/2013
Serrate Donoso, David.
- 8** **Title of the work:** Controlling the magnetic moment of individual atoms with a STM tip
Name of the conference: Reunión Nacional del Club de Magnetismo
Geographical area: National
Type of participation: Participatory - invited/keynote talk
City of event: Zaragoza, Spain
Date of event: 04/12/2009
Serrate Donoso, David; Yoshida, Yasuo; Ferriani, Paolo; Von Bergmann, Kirsten; Kubetzka, André; Wiesendanger, Roland.
- 9** **Title of the work:** Role of the grain surface magnetism in the intergrain magnetoresistance
Name of the conference: Joint of European Magnetic Symposia
Geographical area: Non EU International
Type of participation: Participatory - invited/keynote talk
City of event: Dresden, Germany
Date of event: 01/09/2004
Serrate Donoso, David; de Teresa, J. M.; Ibarra, M.R.



R&D management and participation in scientific committees

R&D management

- 1 Name of the activity:** Director of the Scanning Probe Methods Area (Laboratorio de Microscopias Avanzadas)
Type of management: Scientific, Technical, Administrative
City of entity: Zaragoza, Spain
Entity: Instituto Universitario de Investigación de Nanociencia de Aragón (INA)
Start date: 02/11/2015
Specific tasks: Scientific Promotion, Financial management, Technical management
- 2 Name of the activity:** Local coordinator of the Scanning Probe Methods Laboratory (Laboratorio de Microscopias Avanzadas)
Type of management: Scientific and Technical
City of entity: Zaragoza, Spain
Entity: Instituto de Nanociencia de Aragón, Universidad de Zaragoza
Start date: 01/01/2010 **Duration:** 5 years - 1 month - 2 days
Specific tasks: Tender management, Installation, Maintenance, Scientific management.

Evaluation and revision of R&D projects and articles

- 1 Name of the activity:** Nature Nanotechnology
Performed tasks: reviewer
Entity where activity was carried out: Nature Research Group
City of entity: London, United Kingdom
Type of activity: Review of articles in scientific or technological journals
Start date: 16/01/2017
- 2 Name of the activity:** Advanced Materials
Performed tasks: reviewer
Entity where activity was carried out: Wiley-VCH Verlag GmbH & Co
City of entity: Weinheim, Germany
Type of activity: Review of articles in scientific or technological journals
Start date: 09/12/2011
- 3 Performed tasks:** Evaluador
Entity where activity was carried out: Agencia Nacional de Evaluación y Prospectiva
City of entity: Spain
Type of activity: Experto **Frequency of the activity:** 2
Start date: 01/03/2011
- 4 Name of the activity:** Applied Physics Letters
Performed tasks: Reviewer
Entity where activity was carried out: American Institute of Physics
City of entity: United States of America
Type of activity: Review of articles in scientific or technological journals
Start date: 01/05/2006



- 5** **Name of the activity:** European Journal of Physics B
Performed tasks: Reviewer
Entity where activity was carried out: Springer Berlin Heidelberg
City of entity: Germany
Type of activity: Review of articles in scientific or technological journals
Start date: 01/05/2005
- 6** **Name of the activity:** Physical Review Letters
Performed tasks: Reviewer
Entity where activity was carried out: American Physical Society
City of entity: United States of America
Type of activity: Review of articles in scientific or technological journals
Start date: 01/05/2004
- 7** **Name of the activity:** Physical Review B
Performed tasks: Reviewer
Entity where activity was carried out: American Physical Society
City of entity: United States of America
Type of activity: Review of articles in scientific or technological journals
Frequency of the activity: 3
Start date: 01/03/2004
- 8** **Name of the activity:** Journal of Applied Physics
Performed tasks: Reviewer
Entity where activity was carried out: American Institute of Physics
City of entity: United States of America
Type of activity: Review of articles in scientific or technological journals
Start date: 01/01/2004

Other achievements

Stays in public or private R&D centres

- 1** **Entity:** Instituto de Engenharia de Sistemas e Computadores (INESC)
City of entity: Lisbon, Portugal
Start-End date: 05/10/2004 - 04/12/2004 **Duration:** 2 months
Funding entity: Ministerio de Educación Cultura y Deporte
Name of programme: Estancias breves programa FPU
Goals of the stay: Doctorate
- 2** **Entity:** Institute for Materials Research (Tohoku University)
City of entity: Sendai, Japan
Start-End date: 01/06/2004 - 30/06/2004 **Duration:** 1 month
Funding entity: CSIC AND JAPANESE SOCIETY FOR PROMOTION OF SCIENCE
Goals of the stay: Doctorate



- 3** **Entity:** Laboratoire de Physique de la Matière Condensée (INSA, CNRS)
City of entity: Toulouse, France
Start-End date: 02/06/2002 - 02/09/2002 **Duration:** 3 months - 1 day
Funding entity: Ministerio de Ciencia y Tecnología
Name of programme: Estancias breves programa FPU
Goals of the stay: Doctorate
- 4** **Entity:** University of Southampton
City of entity: Southampton, United Kingdom
Start-End date: 01/07/2000 - 30/09/2000 **Duration:** 3 months
Funding entity: M.E.C.
Name of programme: Erasmus
Goals of the stay: Magneto-optical Kerr effect y Dy/Fe epitaxial films

Periods of research activity

- 1** **N° of recognized periods:** 1
Certifying entity: CNEAI
Date of recognition: 17/07/2020
- 2** **N° of recognized periods:** 2
Certifying entity: CNEAI
Date of recognition: 05/06/2019

Summary of other achievements

- 1** **Description of the achievement:** Evaluaciones docentes
Resultados de las encuestas de desempeño docente realizadas por la Comisión de Control y Evaluación de la Docencia de la Universidad de Zaragoza:
1) Curso 2013-2014: POSITIVA DESTACADA
2) Curso 2014-2015: POSITIVA
Conferral date: 04/05/2015
- 2** **Description of the achievement:** Acreditación I3
Conferral date: 18/12/2013
- 3** **Description of the achievement:** Honorary Research Associate
Codirección de Tesis doctoral.
Conferral date: 01/07/2013
- 4** **Description of the achievement:** Acreditación ANECA Profesor Contratado Doctor
Conferral date: 23/10/2012
- 5** **Description of the achievement:** OUTREACH
Apariciones en los medios de comunicación:
1) Spin von Atomen manipuliert und abgelenkt, Spektrum.de, Germany (2010).
2) Physicists obtain images of atomic spin, United Press International, USA (2010).
3) El átomo, el nuevo ladrillo, Heraldo de Aragón, Spain (2012).



- 4) El INA escribe la palabra "Aragón" manipulando 68 átomos de Cobalto y uno de Plata, Innovaticias.com, Spain (2012).
- 5) Interview 'Atomic manipulatoin'Radio Nacional de España, Spain (2012).
- 6) Portada aniversario Tercer Milenio, Heraldo de Aragón, Spain (2013).
- 7) Tecnología para manipular el átomo, Heraldo de Aragón, Spain (2013).
- 8) Nueva Ruta para diseñar nanodispositivos que almacenan información, La Razón, Spain (2013)

Conferral date: 27/04/2010

6 Description of the achievement: OUTREACH

Monitor de las Jornadas de Puertas Abiertas de la Semana de la Ciencia de 2009, Facultad de Ciencias, University of Zaragoza (2009)

Conferral date: 09/11/2009

7 Description of the achievement: Docencia en enseñanza secundaria

Educador en el Centro Oficial de Educación de Personas Adultas CODEF, área Matemático-tecnológico, 212 horas.

Conferral date: 10/09/2009

8 Description of the achievement: PRIZES

Premio de Licenciatura de la Caja de Ahorros de la Inmaculada

Conferral date: 01/05/2001

9 Description of the achievement: EXPERIMENTS PERFORMED IN LARGE FACILITIES

ISIS, Rutherford Appleton Laboratory (Chilton, Oxford, UK)

Topic: Muon depolarization

Date/Length: 20/08/2000 (6 days)

Experiment/Ref: 'Spin dynamics in double perovskites Sr₂(BMo)O₆ (B=Fe,Cr)/RB11400

Conferral date: 20/08/2000

10 Description of the achievement: Guitarra Moderna y Lenguaje Musical

IV Curso de la Escuela Municipal de Música y Danza de Zaragoza

Conferral date: 02/06/2000

11 Description of the achievement: Programador de Aplicaciones

Centro Europe, Enseñanza a Distancia - ECC

Programador de aplicaciones en lenguajes BASIC, COBOL, C++ y RPG

Calificación: Notable

Conferral date: 14/03/1996

12 Description of the achievement: EXPERIMENTS PERFORMED IN LARGE FACILITIES

Laboratoire National des Champs Magnétiques Pulsés (Toulouse), France

Topic: Magnetoresistance in high pulsed magnetic fields (< 55 Tesla)

Dates/ Length : 09/12/2002 (6 days), 05/05/2003 (17 days), 25/04/2004 (17 days), 12/12/2004 (6 days)

Experiment : 'High field magnetoresistance in half-metallic magnetic oxides'

13 Description of the achievement: EXPERIMENTS PERFORMED IN LARGE FACILITIES

Institute Max Von Laue et Paul Langevin (Grenoble), France

Topic: High resolution neutron powder diffraction.

Date/Length: 08/09/2001 (5 days)

Experiment/Ref: 'Crystallographic structure and magnetism in double perovskites Sr₂B_xMo_{1-x}O₆ (B=Cr,V)/5-12-1262

Date/Length: 01/03/2004 (6 days)



Experiment/Ref: 'Searching for a novel magnetic ground state in high TC Sr₂(Fe_{1-x}Cr_x)ReO₆ double perovskites'/5-31-

Date/Length: 15/03/2005 (3 days)

Experiment/Ref: 'Neutron diffraction under magnetic field in magnetoresistive Re-based double perovskites'/5-31-1517

14 Description of the achievement: MEMBERSHIPS

Real Sociedad de Física Española

Club Español de Magnetismo

ANNEX I -- PRESENTATIONS IN CONGRESSES

(*) as presenting author

AUTHORS: J.M. De Teresa, M.R. Ibarra, L. Morellón, J. Blasco, P.A. Algarabel, D. Serrate, C. Ritter
TITLE: Óxidos magnéticos para Electrónica de Espín
TYPE OF PRESENTATION: Invited
CONGRESS: Reunión Nacional de Física de Estado Sólido (GEFES-RSEF)
MEETING PLACE: Madrid (Spain)
YEAR: 2001

AUTHORS: D. Serrate*, J.M. De Teresa, J. Blasco, C. Ritter, M.R. Ibarra, L. Morellon
TITLE: Influencia del dopaje electrónico sobre la magnetorresistencia y T_C en dobles perovskitas
TYPE OF PRESENTATION: Poster
CONGRESS: Reunión Nacional de Física de Estado Sólido (GEFES-RSEF)
MEETING PLACE: Calella (Spain)
YEAR: 2002

AUTHORS: D. Serrate*, J.M. De Teresa, J. Blasco, C. Ritter, R. Ibarra, L. Morellon
TITLE: Tailoring of T_C in double perovskites studied by neutron diffraction
TYPE OF PRESENTATION: Poster
CONGRESS: Reunión Nacional de Usuario de Técnicas de Neutrones
MEETING PLACE: San Sebastián (Spain)
YEAR: 2002

AUTHORS: D. Serrate*, J. M. de Teresa, L. Gabillet, J. F. Bobo
TITLE: Magnetotransport properties of Ni-O-Co//Co magnetic tunnel junctions with Al₂O₃, MgO and MgxAlyOz as insulator barrier
TYPE OF PRESENTATION: Poster
CONGRESS: XVIII International Colloquim on Magnetic films and surfaces
MEETING PLACE: Madrid (Spain)
YEAR: 2003

AUTHORS: D. Serrate*, J. M. de Teresa, J. Blasco, L. Morellón, M. R. Ibarra
TITLE: Structural, magnetic and transport properties of Sr₂Fe_{1-x}Cr_xReO₆
TYPE OF PRESENTATION: Oral
CONGRESS: International Conference on Magnetism
MEETING PLACE: Rome (Italy)
YEAR: 2003

AUTHORS: L. Gabillet, B. Diouf, J. F. Bobo, D. Serrate, J.M. de Teresa
TITLE: Comparative influences of the metal/insulator interface and the insulator nature on the spin-dependent tunnelling process in magnetic tunnel junctions
TYPE OF PRESENTATION: Poster
CONGRESS: International Conference on Magnetism
PUBLICATION: J. Magn. Mag. Mat. 272-276, e1525-e1526 (2004)
MEETING PLACE: Rome (Italy)
YEAR: 2003

* as presenting author

AUTHORS: C. Marquina, M. R. Ibarra, B. Garcia-Landa, S. Irusta, D. Serrate, J. M. de Teresa, R. Mahendiran, J. Santamaría, A. Larrea, A. Hernando
TITLE: Spin-polarized tunnelling magnetotransport and Coulomb blockade of nanometric particles of manganese perovskites in porous alumina membranes
TYPE OF PRESENTATION: Poster
CONGRESS: International Conference on Magnetism
MEETING PLACE: Rome (Italy)
YEAR: 2003

AUTHORS: J. M. de Teresa, D. Serrate, P. A. Algarabel, L. Morellon, MR. Ibarra
TITLE: Role of the interface in oxide-based magnetoresistive system
TYPE OF PRESENTATION: Invited
CONGRESS: European Material Research Society Conference
MEETING PLACE: Estrasbourg (France)
YEAR: 2003

AUTHORS: M.R. Ibarra, C. Marquina, D. Serrate, A.M. Benito, W. Maser, M.T. Martinez, J.A.H. Coaquira, H.R. Rechenberg
TITLE: Magnetism of nanometric 3d-metal particles in carbon cages: possible relevance for biomedical application
TYPE OF PRESENTATION: Invited
CONGRESS: European Material Research Society Conference
MEETING PLACE: Estrasbourg (France)
YEAR: 2003

AUTHORS: J. M. de Teresa, D. Serrate*, J. Blasco, L. Morellón, M. R. Ibarra, C. Ritter
TITLE: High Curie Temperature and magnetoresistance in half-metallic double perovskites
TYPE OF PRESENTATION: Poster
CONGRESS: 10th International Workshop on Oxide electronics
MEETING PLACE: Augsburg (Germany)
YEAR: 2003

AUTHORS: D. Serrate*, J.M. De Teresa, J. Blasco, L. Morellón, M.R. Ibarra, C. Ritter
TITLE: Structural, magnetic and transport properties of Mo-based and Re-based double perovskite
TYPE OF PRESENTATION: Oral
CONGRESS: Imagine Magnetic and Superconducting Materials
MEETING PLACE: Barcelona (Spain)
YEAR: 2003

AUTHORS: M.R. Ibarra, C. Marquina, D. Serrate, R. Fernández-Pacheco, A.M. Benito, W. Maser, M.T. Martínez, J.A.H. Coaquira, H.R. Rechenberg, J.G. Valdivia
TITLE: Nanometric 3d-metal particles in carbon cages: possible relevance for biomedical applications
TYPE OF PRESENTATION: Poster
CONGRESS: Nanotechnology and Smart Materials for Medical Devices
MEETING PLACE: Edimburgh (Scotland)
YEAR: 2003

AUTHORS: D. Serrate, J.M. De Teresa, P.A. Algarabel, M.R. Ibarra, J. Galibert
TITLE: High field intergrain tunneling magnetoresistance in magnetic oxide
TYPE OF PRESENTATION: Poster
CONGRESS: 7th International Symposium on Research in High Magnetic Field
MEETING PLACE: Toulouse (France)
YEAR: 2003

AUTHORS: J. M. de Teresa, D. Serrate, J.I. Arnaudas, M. R. Ibarra, C. Martínez-Boubeta, J.L. Costa-Krämers, J. Anguita, A. Cebollada, F. Briones
TITLE: Magnetic coupling in epitaxial TM/MgO/Fe(001) (TM=FeCo, Fe/Co, Fe) macroscopic and microscopic trilayer
TYPE OF PRESENTATION: Oral
CONGRESS: Workshop on Magnetic Tunnel Junctions M2TP
MEETING PLACE: Zaragoza (Spain)
YEAR: 2003

AUTHORS: D. Serrate*, J.M. De Teresa, L. Gallibet, F. Bobo
TITLE: Effect of the barrier nature and growing conditions in NiO/Co/barrier/Co tunnel junction
TYPE OF PRESENTATION: Oral
CONGRESS: Workshop on Magnetic Tunnel Junctions M2TP
MEETING PLACE: Zaragoza (Spain)
YEAR: 2003

AUTHORS: J.M. de Teresa, D. Serrate, J. Blasco, L. Morellón, M. R. Ibarra, C. Ritter
TITLE: Structural, magnetic and transport properties of half-metallic double perovskites
TYPE OF PRESENTATION: Invited
CONGRESS: Workshop on Self Organized Strongly Correlated Electron Systems
MEETING PLACE: Santorini (Greece)
YEAR: 2003

AUTHORS: D. Serrate*, J. M. de Teresa, L. Gabillet, J. F. Bobo
TITLE: Magnetic tunnel junctions NiO-Co//Co with Al₂O₃, MgO and MgxAlyO as insulator barrier
TYPE OF PRESENTATION: Poster
CONGRESS: III Reunión de la Red Española de Nanociencia
MEETING PLACE: Oviedo (Spain)
YEAR: 2003

AUTHORS: D. Serrate*, J.M. De Teresa, L. Gallibet, J.F. Bobo
TITLE: Effect of the barrier nature and growing conditions in NiO/Co//Co tunnel junctions
TYPE OF PRESENTATION: Poster
CONGRESS: THIOX 1st topical meeting: Ultrathin Oxides
MEETING PLACE: St. Maguerita (Italy)
YEAR: 2004

AUTHORS: D. Serrate*, J.M. De Teresa, L. Morellón, C. Marquina, P.A. Algarabel, and M.R. Ibarra
TITLE: Magnetoresistive properties of nanostructured materials
TYPE OF PRESENTATION: Poster
CONGRESS: THIOX 1st topical meeting: Ultrathin Oxides
MEETING PLACE: St. Maguerita (Italy)
YEAR: 2004

AUTHORS: R. Fernández-Pacheco, M.R. Ibarra, C. Marquina, D. Serrate, C. Genzor, A. Prieto Martín, B. Velasco, L. Larrad, J.G. Valdivia
TITLE: Carbon coated iron nanoparticles: synthesis, characterization and adsorption to proteins
TYPE OF PRESENTATION: Poster
CONGRESS: 5th International Conference on the Scientific and Clinical Applications of Magnetic Carriers
MEETING PLACE: Lyon (France)
YEAR: 2004

AUTHORS: D. Serrate*, J.M. De Teresa, J. Blasco, L. Morellón, M.R. Ibarra
TITLE: Large magnetoresistance in A_2FeReO_6 double perovskites
TYPE OF PRESENTATION: Oral
CONGRESS: Joint European Magnetic Symposia
PUBLICATION: J. Magn. Mag. Mat. 290-291, 1043-1049 (2005)
MEETING PLACE: Dresden (Germany)
YEAR: 2004

AUTHORS: D. Serrate, J.M. De Teresa, P.A. Algarabel, C. Marquina, L. Morellón, J. Blasco, M.R. Ibarra
TITLE: Giant magnetostriction in Re-based double perovskites
TYPE OF PRESENTATION: Oral
CONGRESS: Joint European Magnetic Symposia
PUBLICATION: J. Magn. Mag. Mat. 290-291, 843-845 (2005)
MEETING PLACE: Dresden (Germany)
YEAR: 2004

AUTHORS: D. Serrate*, J.M. De Teresa, J. Blasco, M.R. Morellón, M.R. Ibarra
TITLE: Properties of half-metallic $(Ba_{0.8}Sr_{0.2})_{2-x}La_{2x/3}\#_{x/3}FeMoO_6$
TYPE OF PRESENTATION: Poster
CONGRESS: Joint European Magnetic Symposia
PUBLICATION: J. Magn. Mag. Mat. 290-291, 1021-1024 (2005)
MEETING PLACE: Dresden (Germany)
YEAR: 2004

AUTHORS: D. Serrate*, J.M. De Teresa, M.R. Ibarra
TITLE: Role of the grain surface magnetism in the intergrain magnetoresistance
TYPE OF PRESENTATION: Invited
CONGRESS: Joint European Magnetic Symposia
MEETING PLACE: Dresden (Germany)
YEAR: 2004

AUTHORS: D. Serrate*, J.M. De Teresa, P.A. Algarabel, M.R. Ibarra, J. Galibert
TITLE: Intergrain magnetoresistance in magnetic oxides up to 50 Tesla
TYPE OF PRESENTATION: Oral
CONGRESS: Joint European Magnetic Symposia
MEETING PLACE: Dresden (Germany)
YEAR: 2004

AUTHORS: J. Michailik, J.M. De Teresa, J. Blasco, D. Serrate, and M.R. Ibarra
TITLE: Magnetic effects of trivalent dopand (La and Nd) at the Sr site in $\text{Sr}_2\text{CrReO}_6$
TYPE OF PRESENTATION: Poster
CONGRESS: European School of Magnetism: New Experimental Approaches in Magnetism
MEETING PLACE: Constanta (Romania)
YEAR: 2005

AUTHORS: R. Fernández-Pacheco, M.R. Ibarra, J.G. Valdivia, C. Marquina, D. Serrate, M.S. Romero, M. Guitierrez, J. Arbio
TITLE: Local Drug Delivery Using Magnetic Implants: Preliminary results
TYPE OF PRESENTATION: Poster
CONGRESS: 2005 NSTI Nanotechnology Conference and Trade Show
PUBLICATION: Technical Proceedings for the 2005 Nanotechnology Conference and Trade Show 1, 144-147 (2005)
MEETING PLACE: Anaheim (USA)
YEAR: 2005

AUTHORS: D. Serrate*, P. A. Algarabel, J. M. De Teresa, J. Galibert, and M.R. Ibarra
TITLE: Colossal Magnetoresistance in $\text{Ca}_x\text{Sr}_{2-x}\text{FeReO}_6$ Double Perovskites: Evidence for a Field Induced Phase Coexistence
TYPE OF PRESENTATION: Poster
CONGRESS: Research in High Magnetic Fields
MEETING PLACE: Sendai (Japan)
YEAR: 2006

AUTHORS: J. Michalik, J.M. De Teresa, D. Serrate, J. Blasco, and M.R. Ibarra
TITLE: Steric effects and electron doping in $\text{Sr}_2\text{CrReO}_6$ double-perovskite oxides
TYPE OF PRESENTATION: Oral
CONGRESS: Joint European Magnetic Symposia
PUBLICATION: J. Magn. Mag. Mat. 316, 413-416 (2007)
MEETING PLACE: San Sebastián (Spain)
YEAR: 2006

AUTHORS: D. Serrate*, J.M. De Teresa, R. Córdoba, and S. M. Yusuf
TITLE: Study of the Structural, Compositional and Magnetic Properties of Half-Metallic $\text{Co}_2\text{Cr}_{1-x}\text{Fe}_x\text{Al}$ Heusler Alloy
TYPE OF PRESENTATION: Poster
CONGRESS: Joint European Magnetic Symposia
MEETING PLACE: San Sebastián (Spain)
YEAR: 2006

AUTHORS: D. Serrate*, J.M. De Teresa, J. Blasco, M.R. Ibarra, and J. Galibert
TITLE: Relevance of Re Orbital Moment in Re-Based Double Perovskites
TYPE OF PRESENTATION: Poster
CONGRESS: Joint European Magnetic Symposia
MEETING PLACE: San Sebastián (Spain)
YEAR: 2006

AUTHORS: J.M. De Teresa, A. Fernández-Pacheco, L. Morellón, J. Orna, J.A. Pardo, D. Serrate, P.A. Algarabel, and M.R. Ibarra
TITLE: Transport Properties of Fe₃O₄ Thin Films for Applications in Spin Electronics
TYPE OF PRESENTATION: Poster
CONGRESS: 32nd International Conference on Micro- and Nano-Engineering
MEETING PLACE: Barcelona (Spain)
YEAR: 2006

AUTHORS: J.M. Orna, L. Morellon, J.A. Pardo, P.A. Algarabel, J.M. De Teresa, A. Fdez-Pacheco, D. Serrate, Soraya Sangiao, and M.R. Ibarra
TITLE: Pulsed Laser Deposition of Fe₃O₄ epitaxial thin films
TYPE OF PRESENTATION: Poster
CONGRESS: European School of Nanosciences and Nanotechnologies
MEETING PLACE: Grenoble (France)
YEAR: 2006

AUTHORS: D. Serrate*, J.M. Orna, L. Morellón, A. Kubetzka, K. von Bergamann, and R. Wiesendanger
TITLE: STM observation of antiphase boundaries in Fe₃O₄(001)/MgO thin epitaxial films
TYPE OF PRESENTATION: Poster
CONGRESS: 72nd Annual meeting of the Deutsche Physikalische Gesellschaft
MEETING PLACE: Berlin (Germany)
YEAR: 2008

AUTHORS: D. Serrate*, J.M. Orna, L. Morellón, A. Kubetzka, K. von Bergamann, and R. Wiesendanger
TITLE: Observation of antiphase boundaries in Fe₃O₄(001)/MgO thin epitaxial films
TYPE OF PRESENTATION: Oral
CONGRESS: 4th International Workshop on Nanomagnetism
MEETING PLACE: Comarruga (Spain)
YEAR: 2008

AUTHORS: D. Serrate*, A. Kubetzka, M. Menzel, K. von Bergmann, and R. Wiesendanger
TITLE: 2D non-collinear antiferromagnetism in the Cr overlayer on Pt(111): a STM study
TYPE OF PRESENTATION: Poster
CONGRESS: Joint European Magnetic Symposia 2008
MEETING PLACE: Dublin (Ireland)
YEAR: 2008

AUTHORS: D. Serrate*, Y. Yoshida, P. Ferriani, S.-W. Hla, M. Menzel, K. von Bergmann, S. Heinze, A. Kubetzka, and R. Wiesendanger.
TITLE: Controlling the single atom magnetization on a magnetic template
TYPE OF PRESENTATION: Invited.
CONGRESS: Seminar über Nahfeldgrenzflächenphysik und Nanotechnologie
MEETING PLACE: Hamburg (Germany)
YEAR: 2008

AUTHORS: D. Serrate*, Y. Yoshida, P. Ferriani, S.-W. Hla, M. Menzel, K. von Bergmann, S. Heinze, A. Kubetzka, and R. Wiesendanger.
TITLE: Spin polarized STM on an artificially engineered atomic structure
TYPE OF PRESENTATION: Oral (presenting author)
CONGRESS: 73rd Annual meeting of the Deutsche Physikalische Gesellschaft
MEETING PLACE: Dresden (Germany)
YEAR: 2009

AUTHORS: A. Kubetzka, P. Ferriani, D. Serrate, Y. Yoshida, S.-W. Hla, M. menzel, K. von Bergmann, S. Heinze, and R. Wiesendanger.
TITLE: Imaging single spins on a magnetic template
TYPE OF PRESENTATION: Oral
CONGRESS: 73rd Annual meeting of the Deutsche Physikalische Gesellschaft
MEETING PLACE: Dresden (Germany)
YEAR: 2009

AUTHORS: Y. Yoshida, D. Serrate, A. Kubetzka, M. Menzel, K. von Bergmann, and R. Wiesendanger.
TITLE: Observation of spin-spiral magnetic order in 2 ML Mn/W(110)
TYPE OF PRESENTATION: Oral
CONGRESS: 73rd Annual meeting of the Deutsche Physikalische Gesellschaft
MEETING PLACE: Dresden (Germany)
YEAR: 2009

AUTHORS: D. Serrate*, Y. Yoshida, P. Ferriani, A. Kubetzka, S.-W. Hla,, M. Menzel, K. Von Bergmann, S. Heinze, and R. Wiesendanger
TITLE: Engineering Spin Structures on the Atomic Scale
TYPE OF PRESENTATION: Poster
CONGRESS: Trends in Nanotechnology 2009
MEETING PLACE: Barcelona (Spain)
YEAR: 2009

AUTHORS: D. Serrate*, Y. Yoshida, P. Ferriani, A. Kubetzka, S.-W. Hla,, M. Menzel, K. Von Bergmann, S. Heinze, and R. Wiesendanger
TITLE: Controlling the magnetic moment of individual atoms with a STM tip
TYPE OF PRESENTATION: Invited
CONGRESS: Reunión Anual del Club Español de Magnetismo 2009
MEETING PLACE: Zaragoza(Spain)
YEAR: 2009

AUTHORS: D. Serrate*, Y. Yoshida, K von Bergmann, A. Kubetzka, M. Menzel, S. Heinze, R. Wiesendanger.
TITLE: 'Interplay between spin-polarized and spin-orbit coupling STM contrast in non-collinear magnetic order'
TYPE OF PRESENTATION: Oral
CONGRESS: VI reunion Grupo Especializado de Física de Estado Sólido (GEFES 2010)
MEETING PLACE: Zaragoza (Spain)
YEAR: 2010

AUTHORS: D. Serrate*,
TITLE: 'How does an atomic spin look like for a STM tip? '
TYPE OF PRESENTATION: Invited
CONGRESS: Seminar of the Applied Physics Department of Universidad de Alicante
MEETING PLACE: Alicante (Spain)
YEAR: 2010

AUTHORS: D. Serrate*, P. Ferriani, Y. Yoshida, S. Heinze, and R. Wiesendanger.
TITLE: 'Magnetic contrast mechanisms in individual adatoms'
TYPE OF PRESENTATION: Oral
CONGRESS: Fuerzas y Túnel 2010
MEETING PLACE: Tarragona (Spain)
YEAR : 2010

AUTHORS: A. Kubetzka, D. Serrate, P. Ferriani, Y. Yoshida, S.-W. Hla, M. Menzel, K. von Bergmann, S. Heinze, and R. Wiesendanger
TITLE: 'Spin-direction and orbital symmetry of magnetic adatoms on a magnetic surface investigated by SP-STM'
TYPE OF PRESENTATION: Oral
CONGRESS: International Conference on Nanoscience and Technology 2010
MEETING PLACE: Beijing (China)
YEAR: 2010

AUTHORS: D. Serrate*, J.M. De Teresa, C. Maquina, P.P. Freitas, and M.R. Ibarra
TITLE: 'Magnetoresistive biosensors for quantitative lateral-flow bioassays using magnetic nano-markers'
TYPE OF PRESENTATION: Poster
CONGRESS: Spain-Hong Kong Ibernarn 2010
MEETING PLACE: Zaragoza (Spain)
YEAR: 2010

AUTHORS: D. Serrate*,
TITLE: 'Magnetic contrast mechanisms of individual atoms: how does the spin look like for a STM tip? '
TYPE OF PRESENTATION: Invited
CONGRESS: F.U Berlin department seminar
MEETING PLACE: Berlin (Germany)
YEAR: 2011

AUTHORS: D. Serrate*,
TITLE: 'Real space imaging of spin-polarized atomic orbitals'
TYPE OF PRESENTATION: Oral
CONGRESS: Train2 workshop (SU DOE)
MEETING PLACE: Toulouse (France)
YEAR: 2011

AUTHORS: S. Schröder, Y. Yoshida, P. Ferriani, D. Serrate, K. von Bergmann, A. Kubetzka, R. Wiesendanger, and S. Heinze
TITLE: 'Conical spin-spiral state in an ultra-thin film driven by higher-order spin interactions'
TYPE OF PRESENTATION: Oral
CONGRESS: Magnetism and magnetic Materials 2011
MEETING PLACE: Arizona (USA)
YEAR: 2011

AUTHORS: S.C. Freitas, F.A. Cardoso, P. Freitas, C. Marquina, D. Saurel, J. Marzo, D. Serrate, J.M. de Teresa, M.R. Ibarra
TITLE: 'Magnetoresistive biosensor for lateral flow immunoassays'
TYPE OF PRESENTATION: Poster
CONGRESS: Magnetism and magnetic Materials 2011
MEETING PLACE: Arizona (USA)
YEAR: 2011

AUTHORS: M. Moro, D. Serrate, M. Piantek, J.I. Pascual, and M.R. Ibarra
TITLE: 'Growth study of Mn/Cu(111) by STM'
TYPE OF PRESENTATION: Poster
CONGRESS: European Conference on Surface Science
MEETING PLACE: Wroclaw (Poland)
YEAR: 2011

AUTHORS: D. Serrate*, P. Ferriani, Y. Yoshida, A. Kubetzka, and R. Wiesendanger
TITLE: 'Spin, Orbital and Energy resolved Co atomic states'
TYPE OF PRESENTATION: Poster
CONGRESS: WE-Heraeus-Seminar of DPG
MEETING PLACE: Bad-Honnef (Germany)
YEAR: 2011

AUTHORS: K. von Bergmann, M. Menzel, D. Serrate, Y. Yoshida, A. Kubetzka, and R. Wiesendanger
TITLE: 'Tunneling anisotropic magnetoresistance on the atomic scale'
TYPE OF PRESENTATION: Talk
CONGRESS: 75th Annual meeting of the Deutsche Physikalische Gesellschaft
MEETING PLACE: Berlin (Germany)
YEAR: 2012

AUTHORS: D. Serrate*;
TITLE: 'Lateral flow and wheel station architectures with MR biochips'
TYPE OF PRESENTATION: Talk
CONGRESS: Train2 workshop on micro and nanodevices
MEETING PLACE: Lisbon (Portugal)
YEAR: 2012

AUTHORS: M. Moro, D. Serrate, M. Piantek, J.I. Pascual, and M.R. Ibarra
TITLE: 'Magnetic properties of Co adatoms in atomically tailored local environment'
TYPE OF PRESENTATION: Poster
CONGRESS: Train2 workshop on nanomagnetism
MEETING PLACE: San Sebastián, Spain
YEAR: 2012

AUTHORS: K. von Bergmann, M. Menzel, D. Serrate, Y. Yoshida, A. Kubetzka, and R. Wiesendanger
TITLE: 'Conical spin-spiral ground state of a Mn double layer on W(110) driven by higher-order exchange interactions'
TYPE OF PRESENTATION: Talk
CONGRESS: American Physical Society
MEETING PLACE: Boston (USA)
YEAR: 2012

AUTHORS: K. von Bergmann, M. Menzel, D. Serrate, Y. Yoshida, A. Kubetzka, and R. Wiesendanger
TITLE: 'Magnetic properties of Co adatoms in atomically tailored local environment'
TYPE OF PRESENTATION: Poster
CONGRESS: Train2 workshop on nanomagnetism (SUDOE)
MEETING PLACE: San Sebastián (Spain)
YEAR: 2012

AUTHORS: D. Serrate*, M. Moro, M. Piantek, J.I. Pascual, and M.R. Ibarra
TITLE: 'Engineering of co atomic 1-D chains on Ag(111) with tailored magnetic ground state'
TYPE OF PRESENTATION: Poster
CONGRESS: International Conference on Magnetism
MEETING PLACE: Busan (Korea)
YEAR: 2012

AUTHORS: D. Serrate*;
TITLE: 'Scanning Probe Microscopies applied to recent advances on Nanoscience'
TYPE OF PRESENTATION: Invited
CONGRESS: Transpyrenees Summer School on Nanosciences and Nanotechnologies
MEETING PLACE: Jaca (Spain)
YEAR: 2012

AUTHORS: M. Moro, D. Serrate, M. Piantek, J.I. Pascual, and M.R. Ibarra
TITLE: 'Magnetic ground state of Co 1-D atomic chains investigated by STM'
TYPE OF PRESENTATION: Poster
CONGRESS: International Conference on Nanoscience and Technology
MEETING PLACE: Paris (France)
YEAR: 2012

AUTHORS: D. Serrate*, M. Moro, M. Piantek, J.I. Pascual, and M.R. Ibarra
TITLE: 'Tunable Kondo resonance of Co dimers on Ag(111) by engineering of the local atomic environment'
TYPE OF PRESENTATION: Oral
CONGRESS: International Conference on Nanoscience and Technology
MEETING PLACE: Paris (France)
YEAR: 2012

AUTHORS: K. von Bergmann, M. Menzel, D. Serrate, Y. Yoshida, A. Kubetzka, R. Wiesendanger, and S. Heinze
TITLE: 'Tunneling anisotropic magnetoresistance on the atomic scale'
TYPE OF PRESENTATION: Oral
CONGRESS: International Conference on Nanoscience and Technology
MEETING PLACE: Paris (France)
YEAR: 2012

AUTHORS: D. Serrate*, M. Moro, J.I. Pascual, and M.R. Ibarra
TITLE: 'Atom manipulation of Co-Hydrogen molecules driven by selective excitation of vibrational modes'
TYPE OF PRESENTATION: Oral
CONGRESS: Fuerzas y Túnel 2012
MEETING PLACE: San Lorenzo del Escorial (Spain)
YEAR: 2012

AUTHORS: M. Moro, D. Serrate, M. Piantek, J.I. Pascual, M.R. Ibarra
TITLE: 'Tunable Kondo resonance of Co atoms on Ag(111)'
TYPE OF PRESENTATION: Poster
CONGRESS: Fuerzas y Túnel 2012
MEETING PLACE: San Lorenzo del Escorial (Spain)
YEAR: 2012

AUTHORS: D. Serrate*
TITLE: 'Building Magnetism from the SPM tip point of view'
TYPE OF PRESENTATION: Invited talk
CONGRESS: ICMAB (CSIC) Department Seminar
MEETING PLACE: Barcelona (Spain)
YEAR: 2012

AUTHORS: M. Moro, D. Serrate, M. Piantek, J.I. Pascual, M.R. Ibarra
TITLE: 'Tunable Kondo resonance of Co atoms on Ag(111)'
TYPE OF PRESENTATION: Oral
CONGRESS: Annual meeting of the Deutsche Physikalische Gesellschaft
MEETING PLACE: Regensburg (Germany)
YEAR: 2013

AUTHORS: M. Moro, D. Serrate, M. Piantek, J.I. Pascual, M.R. Ibarra
TITLE: 'The surge of a Kondo lattice in atomic scale structures'
TYPE OF PRESENTATION: Oral
CONGRESS: ImagineNano 2013
MEETING PLACE: Bilbao (Spain)
YEAR: 2013

AUHORS: D. Serrate*, M. Moro, M. Piantek, J.I. Pascual, M.R. Ibarra
TITLE: 'Inelastic Spin Scattering with individual Kondo impurities investigated by STM spectroscopy'
TYPE OF PRESENTATION: Oral
CONGRESS: Joint of European Magnetic Symposia
MEETING PLACE: Rhodes (Greece)
YEAR: 2013

AUHORS: D. Serrate
TITLE: 'Scanning Microscopy: AFM, STM'
TYPE OF PRESENTATION: Invited
CONGRESS: Nanovalid Training Workshop on Advanced Characterisatoin of Nanomaterials
MEETING PLACE: Zaragoza(Spain)
YEAR: 2013

AUTHORS: M. Moro, M. Piantek, J.I. Pascual, D. Serrate
TITLE: 'The surge of a Kondo lattice in atomic scale structures'
TYPE OF PRESENTATION: Poster
CONGRESS: WE-Heraeus-Seminar of DPG
MEETING PLACE: Bad-Honnef (Germany)
YEAR: 2013

AUTHORS: J. Martínez, M. Moro, C.F. Hirjibehedin, D. Serrate
TITLE: 'The Laboratory for Advanced Microscopies: A Scanning Probe User Facility at the University of Zaragoza'
TYPE OF PRESENTATION: Poster
CONGRESS: WE-Heraeus-Seminar of DPG
MEETING PLACE: Bad-Honnef (Germany)
YEAR: 2013

AUHORS: M. Piantek, D. Serrate, J. Bonvouis, J.I. Pascual, M.R. Ibarra
TITLE: 'Manipulation of the electronic structure in a Ruthenium omplex by an STM/AFM tip'
TYPE OF PRESENTATION: Poster
CONGRESS: Forces and Photons
MEETING PLACE: Berlin (Germany)
YEAR: 2013

AUHORS: M. Piantek, D. Serrate, J.I. Pascual, M.R. Ibarra
TITLE: 'Temperature controlled formation of metal-organic assemblies on surfaces'
TYPE OF PRESENTATION: Poster
CONGRESS: Fuerzas y Túnel 2014
MEETING PLACE: San Sebastián (Spain)
YEAR: 2014

AUHORS: D. Coffey, J.L. Diez-Ferrer, D. Serrate, M. Ciria, C. de la Fuente, and J.I. Araudas
TITLE: 'Magnetic coupling of Tm and Lu adatoms with Fe monoatomic islands on W(110): Spin-polarized tunnelling microscopy and ab-initio calculations'.
TYPE OF PRESENTATION: Oral
CONGRESS: Fuerzas y Túnel 2014
MEETING PLACE: San Sebastián (Spain)
YEAR: 2014

AUHORS: M. Moro, M. Piantek, J.I. Pascual, and D. Serrate*
TITLE: 'The verge of antiferromagnetic RKKY order among individual Kondo impurities'.
TYPE OF PRESENTATION: Poster
CONGRESS: Fuerzas y Túnel 2014
MEETING PLACE: San Sebastián (Spain)
YEAR: 2014

AUHORS: M. Moro, M. Piantek, J.I. Pascual, and D. Serrate.
TITLE: 'Vector mapping of the magnetic moment of individual atoms using spin-polarized STM'.
TYPE OF PRESENTATION: Oral
CONGRESS: Fuerzas y Túnel 2014
MEETING PLACE: San Sebastián (Spain)
YEAR: 2014

AUHORS: M. Moro, M. Piantek, J.I. Pascual, and D. Serrate.
TITLE: 'Doping of the surface of a Topological Insulator with Co adatoms'.
TYPE OF PRESENTATION: Poster
CONGRESS: Fuerzas y Túnel 2014
MEETING PLACE: San Sebastián (Spain)
YEAR: 2014

AUHORS: M. C. Martínez-Velarte, M. Moro-Lagares, Trevor M. Riedemann, Thomas A. Lograsso, L. Morellón, M. R. Ibarra, and D. Serrate
TITLE: 'Effect of Co adatoms on Topological Insulator Bi₂Se₂Te'.
TYPE OF PRESENTATION: Oral
CONGRESS: International Conference on Magnetism 2015
MEETING PLACE: Barcelona (Spain)
YEAR: 2015

AUHORS: M. Moro-Lagares, R. Robles, M. Piantek, M.R. Ibarra, N. Lorente, J.I. Pascual, D. Serrate*
TITLE: 'Controlling the coupling among many-body Kondo states in atomically designed Co structures'.
TYPE OF PRESENTATION: Oral
CONGRESS: International Conference on Magnetism 2015
MEETING PLACE: Barcelona (Spain)
YEAR: 2015

AUHORS: J. Martínez-Castro, M. Piantek, M. Persson, D. Serrate, C.F. Hirjibehedin
TITLE: 'Inducing electric polarization in ultrathin insulating layers'.
TYPE OF PRESENTATION: Oral
CONGRESS: European Conference on Surface Science
MEETING PLACE: Barcelona (Spain)
YEAR: 2015

AUHORS: M. Moro-Lagares, M.C. Martínez Velarte, L. Morellón, M.R. Ibarra, and D. Serrate*

TITLE: 'Non-collinear magnetic order in artificial mono-atomic wires driven by competing exchange interactions.'

TYPE OF PRESENTATION: Oral

CONGRESS: European Conference on Surface Science

MEETING PLACE: Barcelona (Spain)

YEAR: 2015

AUHORS: M. C. Martínez-Velarte, B. Kretz, M. Moro-Lagares, Trevor M. Riedemann, Thomas A. Lograsso, L. Morellón, M. R. Ibarra, A. García-Lekue, D. Serrate*

TITLE: 'The role of surface chemical disorder in the protection of topological spin textures'.

TYPE OF PRESENTATION: Oral

CONGRESS: Fuerzas y Túnel 2016

MEETING PLACE: Girona (Spain)

YEAR: 2016

AUHORS: D. Coffey, M. Ciria, D. Serrate, J. I. Arnaudas

TITLE: 'Spin-Dependent Quantum Interference in Fe(110) monolayers'.

TYPE OF PRESENTATION: Oral

CONGRESS: Fuerzas y Túnel 2016

MEETING PLACE: Girona (Spain)

YEAR: 2016

AUHORS: Jose Martinez-Castro, Marten Piantek, Sonja Schubert, Mats Persson, Cyrus F. Hirjibehedin, and David Serrate*

TITLE: 'Ferroelectricity at the atomic scale'.

TYPE OF PRESENTATION: Oral

CONGRESS: European Conference on Surface Science 2017

MEETING PLACE: Szeged (Hungary)

YEAR: 2017

AUHORS: David Serrate*

TITLE: 'Individual Spin Engineering on Functional Surfaces'.

TYPE OF PRESENTATION: Invited

CONGRESS: Workshop on 2D Materials and Interfaces for Spintronics

MEETING PLACE: Barcelona (Spain)

YEAR: 2017

AUHORS: David Serrate*

TITLE: 'Design and characterization of spin textures in reciprocal and real space.'

TYPE OF PRESENTATION: Invited

CONGRESS: TOCOTRONICS: SFB 1170 Colloquium

MEETING PLACE: Würzburg (Germany)

YEAR: 2018

AUHORS: J. Martínez Castro, M. Piantek, M. Person, C. F. Hirjibehedin, and David Serrate*

TITLE: 'Coupling of single atom magnetic anisotropy to the neighboring electric polarization'.

TYPE OF PRESENTATION: Oral

CONGRESS: American Physical Society March Meeting

MEETING PLACE: Boston (USA)

YEAR: 2019

AUHORS: A. Domínguez-Celorrio, D. Peña, V. Langlais, and David Serrate
TITLE: 'Competing on-surface reaction pathways of bifunctional anthracene precursors to obtain organometallic networks'.
TYPE OF PRESENTATION: Oral
CONGRESS: American Physical Society March Meeting
MEETING PLACE: Boston (USA)
YEAR: 2019

AUHORS: Amelia Dominguez-Celorrio, Marten Piantek, Sabela Quiroga, Diego Peña, Veronique Langlais, Jorge Lobo-Checa , David Serrate Donoso
TITLE: 'Covalent linking of magnetic ions to organic optical switches'.
TYPE OF PRESENTATION: Oral
CONGRESS: XI Iberian Vacuum Conference
MEETING PLACE: Sevilla (Spain)
YEAR: 2019

AUHORS: Amelia Dominguez-Celorrio, Marten Piantek, Sabela Quiroga, Diego Peña, Veronique Langlais, Jorge Lobo-Checa , David Serrate Donoso
TITLE: 'STS characterization of organic optical switches covalently linked to magnetic ions'.
TYPE OF PRESENTATION: Oral
CONGRESS: 8 International Conference on Scanning Probe Spectroscopy
MEETING PLACE: Hamburg (Germany)
YEAR: 2019

AUHORS: Alberto Moya, M. Ricardo Ibarra, Matthias Bode, and David Serrate Donoso
TITLE: 'Electronic transport properties in bidimensional ferromagnet GdAu₂ with atomic scale resolution'.
TYPE OF PRESENTATION: Oral
CONGRESS: XI Iberian Vacuum Conference
MEETING PLACE: Sevilla (Spain)
YEAR: 2019

AUHORS: Alberto Moya, M. Ricardo Ibarra, Matthias Bode, and David Serrate Donoso
TITLE: 'Electronic transport properties in bidimensional ferromagnet GdAu₂ with atomic scale resolution'.
TYPE OF PRESENTATION: Poster
CONGRESS: Scanning Probe Spectroscopies
MEETING PLACE: Hamburg (Germany)
YEAR: 2019

AUHORS: Amelia Dominguez-Celorrio, Marten Piantek, Sabela Quiroga, Diego Peña, Veronique Langlais, Jorge Lobo-Checa , David Serrate Donoso
TITLE: 'Organic optical switches linked covalently to magnetic ions'.
TYPE OF PRESENTATION: Oral
CONGRESS: Bienal de la Real Sociedad Española de Física 2019
MEETING PLACE: Zaragoza (Spain)
YEAR: 2019

AUHORS: David Serrate Donoso*
TITLE: 'Yes, this is the spin flipping'.
TYPE OF PRESENTATION: Invited
CONGRESS: YES, THOSE ARE THE ATOMS: 35 YEARS OF STM IN SPAIN
MEETING PLACE: Madrid (Spain)
YEAR: 2019

AUHORS: *María Moro-Lagares and David Serrate Donoso**

TITLE: 'Exploring non-collinear magnetism in artificial mono-atomic wires by means of spin polarized STM'.

TYPE OF PRESENTATION: Oral

CONGRESS: Meeting of the Condensed Matter Division GEFES 2020

MEETING PLACE: on-line

YEAR: 2020

AUHORS: *David Serrate Donoso**

TITLE: 'New SPM techniques in the LMA portfolio: PFM, nc-AFM and Molecular Nanoprobe'.

TYPE OF PRESENTATION: Oral

CONGRESS: LMA Webinars 2020

MEETING PLACE: on-line

YEAR: 2021

AUHORS: *David Serrate Donoso**

TITLE: 'Magnetism of Chiral Graphene Nanoribbons'.

TYPE OF PRESENTATION: Oral

CONGRESS: reunion de la Red Temática OsMolSys

MEETING PLACE: Granada

YEAR: 2022

AUHORS: *Amelia Domínguez-Celorio, Jorge Lobo-Checa, Véronique Langlais, Mauels Vilas-Varela, Diego Peña, and David Serrate Donoso*

TITLE: 'The effect of the electric polarization of MgO on edge states of chiral graphene nanoribbons'.

TYPE OF PRESENTATION: Oral

CONGRESS: reunion de la Red Temática OsMolSys

MEETING PLACE: Granada

YEAR: 2022

AUHORS: *David Serrate**, Dr. José Martínez-Castro, Dr. Amelia Domínguez-Celorio, Dr Manuel Vilas-Varela, Dr. Diego Peña, Dr. Véronique Langlais

TITLE: 'Controlling the ground state of quantum spins over 2D stacks of polar insulators'.

TYPE OF PRESENTATION: Oral

CONGRESS: Conference of the Condensed Matter Division of the EPS

MEETING PLACE: Manchester (UK)

YEAR: 2022

AUHORS: *David Serrate**, Jens Brede, Nestor Merino-Diez, Alejandro Berdonces, Amelia Domínguez-Celorio, Jorge Lobo, Manuel Vilas-Varela, Diego Peña, Nacho Pascual, Dimas G. de Oteyza

TITLE: 'Spin Polarized Edge States in Chiral Graphene Nanoribbons'.

TYPE OF PRESENTATION: Oral

CONGRESS: On-Surface Synthesis International Workshop 2022

MEETING PLACE: San Feliu de Guixols (Girona)

YEAR: 2022

AUHORS: *David Serrate**

TITLE: 'CONTROL KNOBS TO DESIGN ATOMIC SCALE SPINTRONIC DEVICES'.

TYPE OF PRESENTATION: Invited

CONGRESS: Dvořák Lectures

MEETING PLACE: Prague (Czech Republic)

YEAR: 2022