
Josep Nogués

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<http://icn2.cat/en/magnetic-nanostructures-group>

Education

- Ph.D., Condensed Matter Physics, Royal Institute of Technology, Stockholm, Sweden. May 1993
- "Nanometry Topography and Magnetic Imaging using Scanning Tunneling Microscopy"
 - B.Sc. Physics, Universitat Autònoma de Barcelona, Barcelona, Spain. June 1986.
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Professional Experience

- Group leader of the Magnetic Nanostructures Group at the Catalan Institute of Nanoscience and Nanotechnology, 2006-
 - Guest Professor (sabbatical), Royal Institute of Technology, Oct. 2008-Nov. 2009
 - Research Professor, Institució Catalana de Recerca i Estudis Avançats (ICREA), 2001 –
 - Associated Researcher, Universitat Autònoma de Barcelona, 1997-2001
 - Post-Doctoral Fellow, University of California San Diego, 1993-1997
 - Research Assistant, PhD, Royal Institute of Technology, Stockholm, Sweden. 1986 - 1993
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Publications Statistics

- Publications: **269** (Including **11** Reviews)
 - h-index of **64** (Web of Science)
 - about **22000** citations according to ISI Web of Science
 - Invited Talks: over **275** (Including **14** plenary talks and **24** Keynote)
 - Patents: **9**
 - Contributed Conference Presentations: over **300**
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PhD Thesis Directed

- Jordi Sort; “Magnetic Hardening Induced by Antiferromagnetic-Ferromagnetic Coupling” (**Outstanding Award for the best PhD in the program of Materials Science**)
Univ. Autònoma de Barcelona, Oct. 2002
 - Enric Menendez, “Generation of ferromagnetism on non-magnetic materials”
Univ. Autònoma de Barcelona, Nov. 2008
 - Alberto López Ortega “Synthesis of bi-magnetic core/shell and onion-like nanoparticles based on iron and manganese oxides” (**Outstanding Award for the best PhD in the program of Materials Science**)
Univ. Autònoma de Barcelona, Sept. 2012
 - Zhi Li “Controlled nanotherapies using magneto-plasmonic nanodomains”
Univ. Autònoma de Barcelona, Sept. 2019
 - J. Muro “Improved synthesis routes and coating approaches of anisotropic magnetite nanoparticles for theranostics”
Univ. Autònoma de Barcelona, Oct. 2019
 - Filippos Perdikos “Magnetolectric heterostructures with reduced clamping effect” Univ. Autònoma de Barcelona, June 2023
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Honors

- Since 2019 in the “Stanford University: World’s Top 2% Scientists List”
 - IAAM Medal of the International Association of Advanced Materials, 2021
 - “Outstanding Magnetism” Award, Associazione Italiana di Magnetismo, 2018
 - Fellow of the American Physical Society, 2014
 - Outstanding Young Researcher Award, Catalan Government, 2001

 - Outstanding Referee of the American Physical Society, 2014
 - Excellence in Reviewing of the Journal of Magnetism and Magnetic Materials, 2013
 - Excellence in Reviewing of Physica B, 2016
 - Excellence in Reviewing of the Journal of Alloys and Compounds, 2017

 - First prize winner of the Science as Art competition at the MRS-Spring Meeting 2014

 - Associated Editor of Journal of Magnetism and Magnetic Materials 2007-2009
 - Associated Editor of IEEE Magnetics Letters 2010 – 2019

 - Co-organizer of the following Conferences and Symposia: International Conference on Modern Problems on Solid State and Statistical Physics. (Kiev, Ukraine; 2020); International Conference on Magnetism & Magnetic Materials (Paris, France; 2018); Symposium on “Surfaces and Interfaces in Multilayered Thin Films and Nano-composites” at E-MRS (Warsaw, Poland; 2018); Global Congress and Expo on Materials Science and Engineering (Rome, Italy, 2018); International Workshop on Magneto-Electric Actuation, Magneto-ionics and Related Phenomena in High Surface area Materials (Gavà, Spain, 2018) ; Symposium on "Oxide Nanocomposites and Heterostructures" at ICCE-25 (Rome, Italy, 2017); Energy Materials Nanotechnology Prague Meeting (Prague, Czech Rep. 2016); Energy Materials Nanotechnology Open Access Week (Chengdu, China, 2015); Symposium on "Oxide Nanocomposites and Heterostructures" at ICCE-23 (Chengdu, China, 2015); Energy Materials Nanotechnology Open Access Week (Chengdu, China, 2014); “Oxide devices: thermoelectric conversion, resistive sensors, spintronics and superconductors” at International Union of Materials Research Societies – International Conference on Electronics Materials (Taipei, Taiwan, 2014); International Conference on Research in Condensed Matter Physics (Chennai, India, 2012), “Oxide Composites” at ICCE-17 (Hawaii, USA, 2009); “Development of Oxide Nanocomposites – bulk, thin films and nano-structures” at IUMRS-ICAM (Nagoya, Japan, 2008); “Oxide Composites” at ICCE-16 (Kunming, China, 2008); Oxide Composites” at ICCE-15 (Hainan, China, 2007); “Oxide Composites” at ICCE-14 (Boulder, USA, 2006); “Oxide Composites” at ICCE-12 (Tenerife, Spain, 2005); “Fabrication of Oxide Thin Films and Composites” at IUMRS-ICAM (Yokohama, Japan, 2003).
 - Member of the scientific committee: International Conference on Nanomaterials, Nanofabrication and Nanocharacterization (Oludeniz, Turkey, 2025); International Conference on Fine Particle Magnetism (Bariloche, Argentina, 2025); International Conference on Nanomaterials, Nanofabrication and Nanocharacterization (Oludeniz, Turkey, 2024); MMM (Minneapolis, USA, 2022); Int. Conf. on Nano Science & Technology (Osaka, Japan; 2020); Int. Conf. on Nano Science & Technology (Incheon, South Korea; 2019); Int. Conf. on Nano Science & Technology (Incheon, South Korea; 2018); Int. Conf. on Magnetism (San Francisco, USA; 2018); Symposium “Substitution and recycling of critical raw materials in optoelectronic magnetic and energy devices” at E-MRS Spring Meeting (Strasbourg, France, 2018); Nano-Micro Conference (Shanghai, China, 2017); World Congress of Nano Science & Technology (Singapore, 2016); World Congress of Nanoscience and Technology (Xian, China, 2015); Symposium in “Oxide Nanocomposites and Heterostructures” at ICCE-21 (Tenerife, Spain, 2013); MMM-INTERMAG (Chicago, USA, 2012); Symposium in “Oxide Composites” at ICCE-20 (Beijing, China, 2012); Workshop on Nanomagnetism and Spintronics (San Sebastian, Spain, 2012), Symposium in “Oxide Nanocomposites and Heterostructures” at ICCE-21 (Tenerife, Spain, 2013), INTERMAG (Taipei, Taiwan, 2011), MMM/INTERMAG (Chicago, USA, 2012) among others

 - Best Poster Award: **NANOS-1998**, Stockholm, Sweden, June 1998; **TNT-2003**, Salamanca, Spain, Sept. 2003; **JEMS-2006**, San Sebastian, June 2006; **ICM-2015**, Barcelona, July 2015.

 - Post-Doc. Fellow.: **NATO** 1993 – 1994; **Spanish Government** 1995 – 1997;
 - Doctoral Scholarships: **Royal Institute of Technology**, Sweden. 1992 – 1993; **Spanish Government**. 1988 – 1992

 - Referee for Nature, Phys. Rev. Lett., Nat. Mater., Nat. Phys., Nat. Commun., Adv. Mater., Phys. Rev. B, Appl. Phys. Lett., J. Appl. Phys., J. Phys. Condens. Matter, J. Magn. Mater., J. Phys. D Appl. Phys. among many others.
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Teaching Experience

- Teaching Assistant, Royal Institute of Technology, Stockholm, Sweden. 1992-1993
Methods in Experimental Physics (STM and Fractals)
 - Lecturer, Teaching assistant- University of California San Diego, USA, 1996
Physics Laboratory - Modern Physics, Physics Laboratory - Mechanics and Electrostatics
 - Lecturer, Teaching assistant - Universitat Autònoma de Barcelona, Barcelona, Spain, 1997-
Introduction to Physics, Optical and Magnetic Properties of Materials, Experimental Techniques, Magnetic Nanostructures
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PUBLICATIONS

- 1.- D-X. Chen, R.B. Goldfarb, **J. Nogués**, and K.V. Rao.
"Magnetic Susceptibility of Sintered and Powder Y-Ba-Cu-O."
Journal Applied Physics 63 981- 983 (1988) .
- 2.- N. García, S. Vieira, A.M. Baró, J. Tornero, M. Pazos, L. Vázquez, J. Gómez, A. Aguiló, S. Bourgeal, A. Buendía, M. Hortal, M.A. López de la Torre, M.A. Ramos, R. Villar, K.V. Rao, D-X Chen, **Josep Nogués**, and N. Karpe.
"High T_c Superconductive Materials: Bulk or Twinned Domain/Grain Boundary Percolative Network Superconductors?."
Zeitschrift für. Physik B 70 9-13 (1988).
- 3.- K.V. Rao, D-X Chen, **Josep Nogués**, C. Politis, C. Gallo, J.A. Gerber.
"Frequency and field dependencies of the ac-susceptibility: a probe to the microstructure of high T_c superconducting materials."
MRS-Spring Meeting, Eds. D.U. Gubser, M. Schluter, (Mat. Res. Society Publ.) 133-135 (1987)
- 4.- N. García, S. Vieira, A.M. Baró, L. Vázquez, J. Gómez, A. Aguiló, S. Bourgeal, A. Buendía, J. Tornero, M. Hortal, M.A. López de La Torre, M.A. Ramos, R. Villar, K.V. Rao, D-X Chen, **J. Nogués**.
"Conductivity and ac-susceptibility measurements of high T_c superconductors: Microscopic (STM) versus macroscopic measurements."
Proc. European Workshop on High T_c Superconductors and Potential Applications, (EEC, 1987) 97-98 (1987)
- 5.- C.E. Violet, R.J. Borg, Leopold May, K.V. Rao, **J. Nogués**, R.D. Taylor, A.P. Batra.
"Magnetic behavior of amorphous Fe-Ni-Zr alloys and their response to radiation damage."
Hyperfine Interactions 42 963-966 (1988).
- 6.- D-X Chen, **J. Nogués**, N. Karpe, K.V. Rao.
"Two Stage Magnetization Behaviour in the High T_c Superconductor Y₁Ba₂Cu₃O_{7-x}."
Kexue Tongbao (Chinese Science Bulletin) 33 560-564 (1988).
- 7.- D-X Chen, **J. Nogués**, K.V. Rao, C.E. Violet, R.J. Borg.
"Effect of Cold-Rolling on the Magnetic Transitions in Au₈₃Fe₁₇."
Chinese Physics Letters 5 129-132 (1988).
- 8.- Yu Mei, H.L. Luo, D.X. Chen, **J. Nogués**, K.V. Rao
"Ac Magnetic Susceptibility of YBa₂Cu₃O_{7-x}."
Journal of Applied Physics 64 2533-2536 (1988).
- 9.- N. Karpe, I. Szymczak, D -X Chen, A. Sánchez, **J. Nogués**, and K.V. Rao.
"Carrier Concentration and High T_c Superconductivity."
Materials Research Society Symposium Proceedings 99 483-486 (1988).
- 10.- D-X Chen, **J. Nogués**, and K.V. Rao
"Ac-Susceptibility and Intergranular Critical Current Density of High-T_c Superconductors"
Cryogenics 29 800-808 (1989).

- 11.- D-X Chen, A. Sánchez, **J. Nogués**, J.S. Muñoz
"Bean's, Kim's and exponential critical state models for high T_c superconductors"
Physical Review B 41 9510-9512 (1990).
- 12.- **J. Nogués**, T. Puig, R.B. Jotania, R.V. Upadhyay, R.G. Kulkarni, K.V. Rao
"Magnetic properties of Zn-substituted Co-Ge-Fe-O Ferrites near the dilution limit"
Journal Magnetism and Magnetic Materials 99 275-279 (1991)
- 13.- H.U. Åström, **J. Nogués**, G.K. Nicolaides, K.V. Rao, G. Benediktsson
"Magnetic transitions in single-crystal thulium"
Journal of Physics: Condensed Matter 3 7395-7402 (1991).
- 14.- **J. Nogués**, K.V. Rao
"Atomic scale probe into high- T_c superconductors using scanning tunneling microscopy"
Science and Technology of Nanostructured Magnetic Materials. (NATO ASI Series B, Physics: Vol 259) Eds. G.C. Hadjipanayis & G. Prinz Editors, (Plenum Publ.), 259 339-247 (1991)
- 15.- Yu Zhang, M. Muhammed, L. Wang, **J. Nogués**, K.V. Rao
"Synthesis of superconducting Pb/Sb doped BiSrCaCuO compound via oxalate coprecipitation"
Materials Chemistry and Physics 30 153-159 (1992)
- 16.- **J. Nogués**, J.L. Costa, K.V. Rao
"Fractal dimension of thin film surfaces of gold sputter deposited in mica: A scanning tunneling microscopic study".
Physica A 182 532-541 (1992).
- 17.- K.V. Rao, **J. Nogués**, B.M. Moon, Z. Iqbal
"Functional Properties of Single Crystal and Laser Deposited Thin Films of Cubic BKBO Superconductors"
Applied Superconductivity 1 1763-1771 (1993)
- 18.- **J. Nogués**, K.V. Rao
"Very Low Field Ac-Response at the Loss of Long Range Magnetic Order in Amorphous Fe₉₀Zr₁₀"
IEEE Transactions on Magnetics 29 3246-3248 (1993).
- 19.- **J. Nogués**, V. Skumryev, K.V. Rao
"Energy Gap of Bi-Based Single Crystal by Ac-Susceptibility"
IEEE Transactions on Magnetics 29 3598-3600 (1993)
- 20.- **J. Nogués**, B. Rodell, K.V. Rao
"Scanning Tunneling Microscope and Tunneling Stabilized Magnetic Force Microscope Characterization of Magnetic Nanocrystalline Materials"
Journal of Vacuum Science and Technology. B 12 1851-1855 (1994)
- 21.- **J. Nogués**, K.V. Rao
"On the Frequency Dependence of the Ferro-to-Spin Glass Transition of Amorphous Fe-Rich Fe-Zr"
Journal of Magnetism and Magnetic Materials 135 L11-L16 (1994).
- 22.- **J. Nogués**, K.V. Rao, A. Inoue, K. Suzuki
"A STM Study of the microstructure of Amorphous and Nanocrystalline Fe-Zr-B-Cu Ribbons"
NanoStructured Materials 5 281-287 (1995).
- 23.- J.L. Costa, **J. Nogués**, K.V. Rao
"Direct Measurement of Magnetostrictive Process in Amorphous Wire using Scanning Tunneling Microscopy"
Applied Physics Letters 66 3374-3376 (1995).
- 24.- V. Ström, R.D. Gomez, **J. Nogués**, B. Rodell, K.V. Rao
"Inexpensive High-Voltage Low-Current Amplifier for Driving Long Range Scanning Tunneling Microscope Piezoactuators"
Measurement Science and Technology 6 1072-1077 (1995).

- 25.- **J. Nogués**, D. Lederman, T.J. Moran, I.K. Schuller
 "Large Exchange Bias and its Connection to Interface Structure in FeF₂-Fe Bilayers"
 Applied Physics Letters 68 3186-3188 (1996)
- 26.- **J. Nogués**, D. Lederman, T.J. Moran, Ivan K. Schuller
 "Positive Exchange Bias in FeF₂ - Fe Bilayers"
 Physical Review Letters 76 4624-42627 (1996)
- 27.- D. Lederman, **J. Nogués**, Ivan K. Schuller
 "Exchange Anisotropy and the Antiferromagnetic Surface order Parameter"
 Physical Review B 56 2332-2335 (1997).
- 28.- J.I. Martín, M. Vélez, **J. Nogués**, I.K. Schuller
 "Flux Pinning in a Superconductor by an Array of Magnetic Dots"
 Physical Review Letters 79 1929-1931 (1997)
- 29.- **J. Nogués**, I.V. Zakharchenko, K.V. Rao
 "Comparative Scanning Tunneling Microscopic and Rocking Curve - X-ray Characterization of Metallic Thin Films"
 Thin Solid Films 325 30-35 (1998)
- 30 **J. Nogués**, J.L. Costa, K.V. Rao
 "Are Random Walks Random?"
 Physica A 250 327-334 (1998).
- 31.- T.J. Moran, **J. Nogués**, D. Lederman, I.K. Schuller
 "Perpendicular Coupling at FeF₂/Fe Interfaces"
 Applied Physics Letters 72 617-619 (1998)
- 32.- X. Amils, **J. Nogués**, S. Suriñach, M.D. Baró, J.S. Muñoz
 "Magnetic and X-ray Diffraction Investigations of the Reordering of a Ball Milled Fe-40Al at% Alloy"
 Materials Science Forum 269-272 637-642 (1998)
- 33.- J.I. Martín, M. Vélez, **J. Nogués**, A. Hoffman, Y. Jaccard, I.K. Schuller
 "Pinning Effects by Arrays of Magnetic Dots on Niobium Film"
 Journal of Magnetism and Magnetic Materials 177-181 915-916 (1998)
- 34.- J.I. Martín, **J. Nogués**, I.K. Schuller, M.J. van Bael, K. Temst, C. van Haesendonck, V.V. Moshalkov, Y. Bruynseraede
 "Magnetization Reversal in Long Chains of Submicrometric Co Dots"
 Applied Physics Letters 72 255-257 (1998)
- 35.- J.I. Martín, M. Vélez, **J. Nogués**, I.K. Schuller
 "Fabricación y propiedades de estructuras submicrométricas de materiales magnéticos"
 Revista Española de Física 12 (3) 22-26 (1988)
- 36.- J.I. Martín, Y. Jaccard, A. Hoffmann, **J. Nogués**, J.M. George, J.L. Vicent and I.K. Schuller
 "Fabrication of Submicrometric Magnetic Structures by Electron Beam Lithography"
 Journal of Applied Physics 84 411-5 (1998)
- 37.- X. Amils, **J. Nogués**, S. Suriñach, M.D. Baró and J.S. Muñoz
 "Magnetic Properties of Ball Milled Fe-40%Al at Alloys"
 IEEE Transactions on Magnetism 34 1129-1131 (1998)
- 38.- **J. Nogués**, I.K. Schuller
 "Exchange Bias"
 Journal of Magnetism and Magnetic Materials 192 203-32 (1999)
- 39.- E.D. Dahlberg, B. Miller, B. Hill, B.J. Jönsson, V. Ström, K.V. Rao, **J. Nogués**, I.K. Schuller
 "Measurement of the Ferromagnetic/Antiferromagnetic Interfacial Exchange Energy in Co/CoO and Fe/FeF₂

Layers”

Journal of Applied Physics 83 6893-5 (1998)

- 40.- X. Amils, **J. Nogués**, S. Suriñach, J.S. Muñoz, L. Lutterotti, M.D. Baró
“Microstructure and Hardness of a Nanostructured Fe-40Al at. % Alloy”
Nanostructured Materials 12 801-806 (1999)
- 41.- X. Amils, **J. Nogués**, S. Suriñach, M.D. Baró
“Magnetic Investigations on the disordering of a Ball Milled Fe-40Al at.% Alloy”
Journal of Magnetism and Magnetic Materials 203 129-131 (1999)
- 42.- X. Amils, **J. Nogués**, S. Suriñach, M.D. Baró
“Magnetic Investigations on the reordering of a Ball Milled Fe 40 Al at. % Alloy”
Journal of Magnetism and Magnetic Materials 196 185-7 (1999)
- 43.- **J. Nogués**, T.J. Moran, D. Lederman, Ivan K. Schuller, K.V. Rao
“Role of the Interface Structure in Exchange Bias: Comparison of Antiferromagnetic Thin Films and Single Crystals”
Physical Review B 59 6984-6993 (1999)
- 44.- A. Hernando, X. Amils, **J. Nogués**, S. Suriñach, M.D. Baró, M.R. Ibarra
“Influence of Magnetization on the Reordering of Nanostructured Ball Milled Fe-40 at.% Al Powders”
Physical Review B 58 R11864-7 (1998)
- 45.- P. Miltényi, M. Gruyters, G. Güntherodt, **J. Nogués**, Ivan K. Schuller
“Spin Waves in Exchange Biased Fe/Fe₂”
Physical Review B 59 3333-6 (1999)
- 46.- P. Miltényi, M. Gierlings, M. Bammig, U. May, G. Güntherodt, **J. Nogués**, M. Gruyters, C. Leighton, Ivan K. Schuller
“Tuning Exchange Bias”
Applied Physics Letters 75 2304-6 (1999)
- 47.- X. Amils, **J. Nogués**, S. Suriñach, J.S. Muñoz, L. Lutterotti, S. Gialanella, M.D. Baró
“Structural, Mechanical and Magnetic Properties of Nanostructured FeAl Alloys During Disorder and Thermal Recovery”
NanoStructured Materials 11 689-95 (1999)
- 48.- X. Amils, **J. Nogués**, J.S. Muñoz, S. Suriñach, M.D. Baró
“Correlation between magnetic and structural parameters in Fe-40Al at% nanostructured Alloys”
Materials Science Forum 321-314 531-8 (1999)
- 49.- C. Leighton, **J. Nogués**, H. Suhl, I.K. Schuller
“Competing interfacial exchange and Zeeman energies in exchange biased bilayers”
Physical Review B 60 12837-12840 (1999)
- 50.- J. Sort, **J. Nogués**, X. Amils, S. Suriñach, J.S. Muñoz, M.D. Baró
“Room temperature coercivity enhancement in mechanically alloyed antiferromagnetic- ferromagnetic powders”
Applied. Physics Letters 75 3177-3179 (1999)
- 51.- J. Sort, **J. Nogués**, X. Amils, S. Suriñach, J.S. Muñoz, M.D. Baró
“Correlation between the microstructure and enhanced room temperature coercivity in ball milled ferromagnetic-antiferromagnetic composites”
Materials Science Forum 343-346 812-8 (2000)
- 52.- **J. Nogués**, C. Leighton, I.K. Schuller
“Correlation Between Antiferromagnetic Interface Coupling and Positive Exchange Bias”
Physical Review B 61 1315-7 (2000)

- 53.- **J. Nogués**, L. Morellon, C. Leighton, M.R. Ibarra, I.K. Schuller
 “Antiferromagnetic Spin Flop and Exchange Bias”
 Physical Review B 61 R6455-8 (2000)
- 54.- J. Sort, **J. Nogués**, X. Amils, S. Suriñach, J.S. Muñoz, M.D. Baró
 “Magnetic Hardening induced by exchange coupling in mechanically milled antiferromagnetic -
 ferromagnetic composites”
 Materials Research Society Symposium Proceedings 581 641-6 (2000)
- 55.- J. Wittborn, K.V. Rao, **J. Nogués**, I.K. Schuller
 “Magnetic domain and domain wall imaging of submicron Co dots by probing the magnetostrictive response
 using Atomic Force Microscopy”
 Applied Physics Letters 76 2931-3 (2000)
- 56.- C. Leighton, **J. Nogués**, J. Jönsson-Åkerman, I.K. Schuller
 “Coercivity enhancement in exchange bias systems driven by interfacial magnetic frustration”
 Physical Review Letters 84 3466-9 (2000)
- 57.- C. Leighton, M. Song, **J. Nogués**, M.C. Cyrille, I.K. Schuller
 “Reversal asymmetry in exchange biased hysteresis loops as probed by magnetoresistance measurements”
 Journal of Applied Physics 88 344-7 (2000)
- 58.- M.R. Fitzsimmons, P. Yashar, C. Leighton, I.K. Schuller, **J. Nogués**, C.F. Majkrzak, J. Dura
 “Asymmetric magnetization reversal in exchange biased hysteresis loops”
 Physical Review Letters 84 3986-9 (2000)
- 59.- X. Amils, **J. Nogués**, S. Suriñach, M.D. Baró, M.A. Morris-Muñoz; D.G. Morris
 Hardening and softening of FeAl during milling and annealing
 Intermetallics 8 805-13 (2000)
- 60.- V. Skumryev, **J. Nogués**, J.S. Muñoz, B. Martinez, R. Senis, J. Fontcuberta, L. Pinsard, A. evcolevschi, Y.M.
 Mukovskii
 “Anomalous anisotropic ac susceptibility response of $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$ ($x=1/8$) crystals: Relevance to phase
 separation”
 Physical Review B 62 3879-82 (2000)
- 61.- J. Sort, **J. Nogués**, X. Amils, S. Suriñach, J.S. Muñoz, M.D. Baró
 “Room temperature magnetic hardening in Mechanically milled ferromagnetic- antiferromagnetic composites”
 Journal of Magnetism and Magnetic Materials 219 53-7 (2000)
- 62.- J. Sort, **J. Nogués**, S. Suriñach, J.S. Muñoz, M.D. Baró
 “Enduriment Magnètic induït per l’acoblament de material ferromagnètic i antiferromagnètic”
 Revista de Física 16-23 (2n semestre 2000)
- 63.- J. Baruchel, E. Boller, J.I. Espese, H. Klein, C. Medrano, **J. Nogués**, E. Pernot, M. Schlenker
 “Bragg-diffraction imaging of magnetic crystals with third generation synchrotron radiation”
 Journal of Magnetism and Magnetic Materials 233 38-47 (2001)
- 64.- X. Amils, **J. Nogués**, S. Surinach, J.S. Munoz, M.D. Baró, A. Hernando, J.P. Morniroli
 “Tailoring of paramagnetic (structurally ordered) nanometric grains separated by ferromagnetic (structurally
 disordered) grain boundaaries: Idsolating grain boundariy magnetic effects.”
 Physical Review B 63 052402 (4 pages) (2001)
- 65.- M. Tada, J. Yamada, V.V. Srinivasu, V. Sreedevi, H. Kohmoto, A. Hashizume, Y. Inamori, T. Tanaka, A. Harrou,
J. Nogués, J.S. Muñoz, J.M. Colino, T. Endo
 “ $\text{La}_{1-x}\text{Ba}_x\text{MnO}_z$ thin film growth by ion beam sputtering: effects of oxygen partial pressure”
 Journal of Crystal Growth 229 415-418 (2001)
- 66.- J. Yamada, M. Tada, A. Hashizume, H. Kohmoto, E. Takahashi, S. Shiomi, T. Endo, **J. Nogués**, J.S. Muñoz, T. Masu

“Effects of Oxygen Partial Pressure on thin film growth of La-Ba-Mn-O System”
Transactions of the Materials Research Society of Japan 26 1049-1052 (2001)

- 67.- X. Amils, J.S. Garitaonandia, **J. Nogués**, S. Suriñach, F. Plazaola, J.S. Muñoz, M.D. Baró
“Micro- and Macroscopic study of the disordering (ball milling) and posterior reordering (annealing) of Fe-40Al%.”
Journal of Non-Crystalline Solids 287 272-276 (2001)
- 68.- B. Martínez, V. Laukhin, J. Fontcuberta, **J. Nogués**, V. Skumryev, J.S. Muñoz, L. Pinsrad, A. Revcolevschi
“Ac-Susceptibility study of the low doped regime of $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$ ”
Journal of Applied Physics 89 6633-6635 (2001).
- 69.- C. Leighton, M.R. Fitzsimmons, P. Yashar, A. Hoffmann, **J. Nogués**, J. Dura, C.F. Majkrzak, I.K. Schuller
“Two stage magnetization reversal in exchange biased bilayers”
Physical Review Letters 86 4394-7 (2001)
- 70.- **J. Nogués**, V. Skumryev, J.S. Muñoz, B. Martínez, J. Fontcuberta, L. Pinsard, A. Revcolevschi
“Paramagnetic behavior and correlation between high and low temperature structural and magnetic interactions in $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$ ($x = 1/8$) single crystal perovskites”
Physical Review B 64 024434 1-6 (2001)
- 71.- C. Leighton, A. Hoffmann, M.R. Fitzsimmons, **J. Nogués**, I.K. Schuller
“Deposition of epitaxial $\alpha\text{-Fe}_2\text{O}_3$ layers for exchange bias studies by reactive d.c. magnetron sputtering”
Philosophical Magazine B 81 1927-1934 (2001)
- 72.- J. Sort, **J. Nogués**, S. Suriñach, J.S. Muñoz, M.D. Baró, E. Chappel, F. Dupont, G. Chouteau
“coercivity and squareness enhancement in ball-milled hard magnetic - antiferromagnetic composites”
Applied Physics Letters 79 1142-1144 (2001)
- 73.- M. Fitzsimmons, C. Leighton, A. Hoffmann, P.C. Yashar, **J. Nogués**, I.K. Schuller, K. Liu, C.F. Majkrzak, J. Dura, H. Fritzsche
“Influence of structural disorder and temperature on magnetization reversal in exchange coupled bilayers”
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- 236.- Z. Li, A. López-Ortega, A. Aranda-Ramos, J.L. Tajada, J. Sort, C. Nogués, P. Vavassori, **J. Nogués**, B. Sepúlveda
 “Simultaneous local heating/thermometry based on plasmonic magnetochromic nanoheaters”
 Small 14 1800868 (2018)
- 237.- R.U. Ichikawa, A.G. Roca, A. López-Ortega, M. Estrader, I. Pêral, X. Turrillas, **J. Nogués**
 “Combining X-ray whole powder pattern modeling, Rietveld and pair distribution function analyses as a novel bulk approach to study interfaces in heteronanostructures: Oxidation front in FeO/Fe₃O₄ core/shell nanoparticles as a case study”
 Small 14 1800804 (2018)
- 238.- E. Dislaki, S. Robbenolt, M. Campoy-Quiles, **J. Nogués**, E. Pellicer, J. Sort
 “Coercivity modulation in Fe-Cu pseudo-ordered porous thin films controlled by applied voltage: A sustainable, energy-efficient approach to magnetically driven materials”
 Advanced Science 5 1800499 (2018)
- 239.- Z. Li, A. Aranda-Ramos, P. Güell-Grau, J.L. tajada, L- Pou_Macayo, S. Lope Piedrafita, F. Pi, A.G. Roca, M.D. Baró, J. Sort, C. Nogués, **J. Nogués**, B. Sepúlveda

- “Magnetically amplified photothermal therapies and multimodal imaging with magneto-plasmonic nanodomains”
Applied Materials Today 12 430-440 (2018)
- 240.- P. Torruella, A. Ruiz-Caridad, M. Walls, A.G. Roca, A. Lopez-Ortega, J. Blanco-Portals, L. Lopez-Conesa, **J. Nogués**, F. Peiro, S. Estarde
“Atomic-scale determination of cation inversion in spinel-based oxide nanoparticles”
Nano Letters 18 5854-5861 (2018)
- 241.- A. Quintana, E. Menéndez, M.O. Liedke, M. Butterling, A. Wagner, V. Sireus, P. Torruella, S. Estrade, F. Peiro, J. Dendooven, C. Detavernier, P.D. Murray, D.A. Gilbert, K. Liu, E. Pellicer, **J. Nogués**, J. Sort
“Voltage-controlled ON-OFF Ferromagnetism at room temperature in a single metal oxide film”
ACS Nano 12 10291-10300 (2018)
- 242.- C. Navarro-Senent, J. Fornell, E. Isarain-Chaved, A. Quintana, E. Menendez, M. Foerster, L. Aballe, E. Weschke, **J. Nogués**, E. Pellicer, J. Sort
“Large magnetoelectric effects in electrodeposited nanoporous microdisks driven by effective surface charging and magneto-ionics”
ACS Applied Materials Interfaces 10 44897-44905 (2018)
- 243.- A. Serrà, Y. Zhang, B. Sepúlveda, E. Gómez, **J. Nogués**, J. Michler, L. Philippe
“Highly active ZnO-based biomimetic fern-like microleaves for photocatalytic water decontamination using sunlight”
Applied Catalysis B: Environmental 248 129-146 (2019)
- 244.- J. Muro-Cruces, A.G. Roca, A. López-Ortega, E. Fantechi, D. del-Pozo-Bueno, S. Estradé, F. Peiró, B. Sepúlveda, F. Pineider, C. Sangregorio, **J. Nogués**
“Precise size control of the growth of Fe₃O₄ nanocubes over a wide size range using a rationally designed one-pot synthesis”
ACS Nano 13 7716-7728 (2019)
- 245.- I.V. Golosovsky, M. Estrader, A. López-Ortega, A.G. Roca, L. López-Conesa, E. Del Corro, S. Estradé, F. Peiró, I. Puente-Orench, **J. Nogués**
“Zinc blende and wurtzite CoO polymorph nanoparticles: Rational synthesis and commensurate and incommensurate magnetic order”
Applied Materials Today 16 322-331 (2019)
- 246.- A. Serrà, Y. Zhang, B. Sepúlveda, E. Gómez, **J. Nogués**, J. Michler, L. Philippe
“Highly reduced ecotoxicity of ZnO-based micro/nanostructures on aquatic biota: Influence of architecture, chemical composition, fixation, and photocatalytic efficiency”
Water Research 169 115210 (2020)
- 247.- A. Serrà, R. Artal, J. Garcia-Amoros, B. Sepúlveda, E. Gómez, **J. Nogués**, L. Philippe
“Hybrid Ni@ZnO@ZnS-Microalgae for Circular Economy: A Smart Route to the Efficient Integration of Solar Photocatalytic Water Decontamination and Bioethanol Production”
Advanced Science 7 1902447 (2020)
- 248.- E.H. Sanchez, M. Vasilakaki, S. Seong Lee, P.S. Normile, G. Muscas, M. Murgia, M.S. Andersson, G. Singh, R. Mathieu, P. Nordblad, P.C. Ricci, D. Peddis, K.N. Trohidou, **J. Nogués**, J.A. De Toro
“Simultaneous individual and dipolar collective properties in binary assemblies of magnetic nanoparticles”
Chemistry of Materials 32 969-981 (2020)
- 249.- M. Foerster, E. Menéndez, E. Coy, A. Quintana, C. Gómez-Olivella, D. Esqué de los Ojos, O. Vallcorba, C. Frontera, L. Aballe, **J. Nogués**, J. Sort, I. Fina
“Local manipulation of metamagnetism by strain nanopatterning”
Materials Horizons 7 2056-2062 (2020)
- 250.- J. de Rojas, A. Quintana, A. Lopeandía, J. Salguero, B. Muñiz, F. Ibrahim, M. Chshiev, A. Nicolenco, M.O. Liedke, M. Butterling, A. Wagner, V. Sireus, L. Abad, C.J. Jensen, K. Liu, **J. Nogués**, J.L. Costa-Krämer, E. Menéndez, J. Sort

- "Voltage-driven motion of nitrogen ions: a new paradigm for magneto-ionics"
Nature Communications 11 5871 (2020)
- 251.- M.A. Roldan, A. Mayence, A. López-Ortega, R. Ishikawa, J. Salafranca, M. Estrader, G. Salazar-Alvarez, M.D. Baró, **J. Nogués**, S.J. Pennycook, M. Varela
"Probing the meta-stability of oxide core/shell nanoparticle systems at atomic resolution"
Chemical Engineering Journal 405 126820 (2021)
- 252.- P. Güell-Grau, F. Pi, R. Villa, **J. Nogués**, M. Alvarez, B. Sepúlveda
"Ultra broadband light absorbing Fe/polymer flexible metamaterial for soft opto-mechanical devices"
Applied Materials Today 23 101052 (2021)
- 253.- D.del-Pozo-Bueno, M. Varela, M. Estrader, A. López-Ortega, A.G. Roca, **J. Nogués**, F. Peiró, S. Estardé
"Direct evidence of a graded magnetic interface in bimagnetic core/shell nanoparticles using electron magnetic circular dichroism"
Nano Letters 21 6923-6930 (2021)
- 254.- P. Güell-Grau, P. Escudero, F.G. Perdikos, J.F. López-Barbera, C. Pascual-Izarra, R. Villa, **J. Nogués**, B. Sepúlveda, M. Alvarez
"Mechanochromic detection for soft opto-magnetic actuators"
ACS Applied Materials & Interfaces 13 47871-47881 (2021)
- 255.- P. Güell-Grau, F. Pi, R. Villa, O. Eskilson, D. Aili, **J. Nogués**, B. Sepúlveda, M. Alvarez
"Elastic plasmonic-enhanced Fabry-Pérot cavities with ultrasensitive stretching tunability"
Advanced Materials 34 2106731 (2022)
- 256.- E.H. Sánchez, M. Vasilakaki, S.S. Lee, P.S. Normile, M.S. Andersson, R. Mathieu, A. López-Ortega, B.P. Pichon, D. Peddis, C. Binns, P. Nordblad, K. Trohidou, **J. Nogués**, J.A. De Toro
"Crossover from Individual to Collective Magnetism in Dense Nanoparticle Systems: Local Anisotropy Versus Dipolar Interactions"
Small 18 2106762 (2022)
- 257.- A. Fluksman, A. Lafuente, Z. Li, J. Sort, S. Lope-Piedrafita, M.J. Esplandiu, **J. Nogués**, A.G. Roca, O. Benny, B. Sepulveda
"Efficient Tumor Eradication at Ultralow Drug Concentration via Externally Controlled and Boosted Metallic Iron Magnetoplasmonic Nanocapsules"
ACS Nano 17 1946-1958 (2023)
- 258.- F. Pujol-Vila, P. Güell-Grau, **J. Nogués**, M. Alvarez, B. Sepúlveda
"Soft Optomechanical Systems for Sensing, Modulation, and Actuation"
Advanced Functional Materials 33 2213109 (2023)
- 259.- I.V. Golosovsky, I.A. Kibalin, A. Gukasov, A.G. Roca, A. López-Ortega, M. Estrader, M. Vasilakaki, K. N. Trohidou, T. C. Hansen, I. Puente-Orench, E. Lelièvre-Berna, **J. Nogués**
"Elucidating Individual Magnetic Contributions in Bi-Magnetic Fe₃O₄/Mn₃O₄ Core/Shell Nanoparticles by Polarized Powder Neutron diffraction"
Small Methods 7 2201725 (2023)
- 260.- A. Fluksman, A. Lafuente, R. Braunstein, E. Steinberg, N. Friedman, Z. Yekhin, A.G. Roca, **J. Nogués**, R. Hazan, B. Sepulveda, O. Benny,
"Modular drug-loaded nanocapsules with metal dome layers as a platform for obtaining synergistic therapeutic biological activities"
ACS Applied Materials & Interfaces 15 50330-50343 (2023)
- 261.- A.G. Roca, J.F. Lopez-Ortega, A. Lafuente, F. Özel, E. Fantechi, J. Muro-Cruces, M. Hemadi, B. Sepulveda, **J. Nogués**
"Iron oxide nanoparticles (Fe₃O₄, γ -Fe₂O₃, FeO) as photothermal heat mediators in the first, second and third biological windows"
Physics Reports 1043 1-35 (2023)

- 262.- O. Careta, A. Nicolenco, F. Perdikos, A. Blanquer, E. Ibañez, E. Pellicer, C. Stefani, B. Sepúlveda, **J. Nogués**, J. Sort, C. Nogués
 “Enhanced Proliferation and Differentiation of Human Osteoblasts by Remotely Controlled Magnetic-Field-Induced Electric Stimulation Using Flexible Substrates”
 ACS Applied Materials & Interfaces 15 58054-58066 (2023)
- 263.- T. Goršak, E. J. Jovičić, I. Križaj, T. Petan, B. Sepulveda, **J. Nogués**, L. Tratnjek, M. E. Kreft, S. Kralj, D. Makovec
 “The efficient magneto-mechanical actuation of cancer cells using a very low concentration of non-interacting ferrimagnetic hexaferrite nanoplatelets”
 Journal of Colloid and Interface Science 657 778–787 (2024)
- 264.- S. Ulusoy, M. Feygenson, T. Thersleff, T. Uusimaeki, M. Valvo, A. G. Roca, **J. Nogués**, P. Svedlindh, G. Salazar-Alvarez
 “Elucidating the Lithiation Process in Fe_{3-δ}O₄ Nanoparticles by Correlating Magnetic and Structural Properties”
 ACS Applied Materials & Interfaces 16 14799–14808 (2024)
- 265.- A. Serra, E. Gomez, N. al Hoda al Bast, Y. Zhang, M. Duque, M. J. Esplandiu, J. Esteve, J. Nogués, B. Sepúlveda
 “Wireless pulsed nanophotocatalytic cell for the ultrafast degradation of organic pollutants”
 Chemical Engineering Journal 487 150663 (2024)
- 266.- G. Shahnazarova, N. Al Hoda Al Bast, J.C. Ramirez, **J. Nogués**, J. Esteve, J. Fraxedas, A. Serra, M.J. Esplandiu, B. Sepulveda
 " Fe/Au galvanic nanocells to generate self-sustained Fenton reactions without additives at neutral pH "
 Materials Horizons 11 2206-2216 (2024)
- 267.- J. Llacer-Wintle, L. Hertle, S. Ziegler, E. Pellicer, A.G. Roca, **J. Nogués**, J. Puigmartí-Luis, B.J. Nelson, X.-Z. Chen, S. Pané
 “A simple in-situ marker guiding shape-controlled synthesis of iron oxide nanoparticles”
 Advanced Functional Materials 34 2404113 (2024)
- 268.- N. López-Pintó, C.J. Jensen, Z. Chen, Z. Tan, Z. Ma, M.O. Liedke, M. Butterling, A. Wagner, J. Herrero-Martín, E. Menéndez, **J. Nogués**, K. Liu, J. Sort
 “Room-temperature solid-state nitrogen-based magneto-ionics in CoxMn1-xN films”
 Advanced Functional Materials 34 2404487 (2024)
- 269.- P. Maltoni, R. López-Martín², E.H. Sánchez, P.S. Normile, M. Vasilakaki, S.S. Lee, B. Santos Burgos, E.A. López del Castillo, D. Peddis, C. Binns, K.N. Trohidou, R. Mathieu, **J. Nogués**, J.A. De Toro
 "Non- exchange bias hysteresis loop shifts in dense composites of soft- hard magnetic nanoparticles: New possibilities for simple reference layers in magnetic devices"
 Advanced Composites and Hybrid Materials 7 182 (2024)

INVITED TALKS

Plenary

- 1.- M.R. Fitzsimmons, A. Hoffmann, C. Leighton, I.K. Schuller, **J. Nogués**, D. Lederman, H. Shi, C.F. Majkrzak, J.A. Dura, J.W. Seo, J.P. Locquet
“Influence of structural disorder and temperature on magnetization reversal in exchange coupled bilayers” (PLENARY)
Polarized Neutrons and Synchrotron X-rays for Magnetism
Venezia, Italy Aug. 4-6, 2003
- 2.- V. Skumryev, S. Stoyanov, Y. Zhang, G. Hadjipanayis, D. Givord, **J. Nogués**
“Overcoming thermal fluctuations in ferromagnetic nanostructures using exchange bias” (PLENARY)
International Workshop on Nanomagnetism
La Habana, Cuba Nov. 15-19, 2004
- 3.- **J. Nogués**
“Limits in magnetic recording: problems and possible solutions” (PLENARY)
Summer School Women in Nano
Coma-ruga, Spain June 1-6, 2007
- 4.- **J. Nogués**, A. Lopez-Ortega, M. Estrader, D. Tobia, E. Winkler, S. Estarde, I. Golosovsky, J. Sort, G. Salazar Alvarez, F. Peiro, S. Suriñach, R.D. Zysler, M.D. Baro
“Novel structural and magnetic effects in passivated antiferromagnetic transition metal monoxides: inverted antiferromagnetic(AFM)/ferrimagnetic(FiM) core/shell nanoparticles” (PLENARY)
International Conference on Composites/Nano Engineering
Shanghai, China July, 24-30, 2011
- 5.- J. Sort, C. Navarro-Senent, A. Quintana, E. Menendez, J. Fornell, J. Zhang, M.D. Baró, **J. Nogués**, E. Pellicer
“Magnetoelectric effects in nanoporous alloys as a means to enhance energy efficiency in magnetically actuated devices” (PLENARY)
International Conference on Materials Science and Condensed Matter Physics
Chisinau, Moldavia 25-28, Sept. 2018
- 6.- **J. Nogués**, Z. Li, A. Aranda-Ramos, A. Lopez-Ortega, P. Guell-Grau, J.L. Tajada, L. pou-Macayo, F. Pi, S. Lope Piedrafita, M.D. Baro, J. Sort, P. Vavassori, C. Nogues, B. Sepulveda
“Magnetoplasmonic nanodomains as a novel structure for biomedical Applications” (PLENARY)
International Baltic Conference on Magnetism
Svetlogosk, Russia 18-22, Aug. 2019
- 7.- **J. Nogués**, Z. Li, A. Aranda-Ramos, A. Lopez-Ortega, P. Guell-Grau, J.L. Tajada, L. pou-Macayo, F. Pi, S. Lope Piedrafita, M.D. Baro, J. Sort, P. Vavassori, C. Nogues, B. Sepulveda
“Magnetoplasmonic nanodomains as a novel structure for biomedical Applications” (PLENARY)
Joint European Magnetic Symposia (JEMS)
Uppsala, Sweden 26-30, Aug. 2019
- 8.- **J. Nogués**, J. Muro-Cruces, A.G. Roca, A. Lopez-Ortega, E. Fantechi, D. del-Pozo-Bueno, S. Estarde, F. Peiro, F. Pineider, C. Sangregorio, B. Sepulveda
“Fe₃O₄ nanocubes as versatile theranostic agents” (PLENARY)
Advanced Materials Lecture Series
On-line/On demand (<https://www.proceedings.iaamonline.org/article/vpoam-2105175>) June 22, 2021
- 9.- **J. Nogués**, J. Muro-Cruces, A.G. Roca, A. Lopez-Ortega, E. Fantechi, F. özel, D. del-Pozo-Bueno, S. Estarde, F. Peiro, F. Pineider, C. Sangregorio, B. Sepulveda
“Fe₃O₄ nanocubes as versatile theranostic agents” (PLENARY)
International Meeting on Magnetism and Magnetic Materials

On-line April 18-20. 2022

- 10.- **J. Nogués**, A. Lafuente, Z. Li, A. Flucksman, A. Aranda-Ramos, A. Lopez-Ortega, A.G. Roca, P. Guell-Grau, J.L. Tajada, L. Pou-Macayo, F. Pi, S. Lope Piedrafita, M.D. Baro, J. Sort, P. Vavassori, C. Nogues, O. Benny, B. Sepulveda
“Magnetoplasmonic nanodomains as a novel structure for biomedical Applications” (PLENARY)
Nanomaterial Applied to Life Sciences (NALS)
Santander, Spain April 27-29, 2022
- 11.- **J. Nogués**,
“Magnetoplasmonic nanodomains as a novel structure for biomedical Applications” (PLENARY)
International Union of Materials Research Societies- International Conference on Advanced Materials (IUMRS-ICAM)
Cancún, Mexico Aug. 14-19, 2022
- 12.- **J. Nogués**, A. Lafuente, Z. Li, A. Flucksman, A. Aranda-Ramos, A. Lopez-Ortega, A.G. Roca, P. Guell-Grau, J.L. Tajada, L. Pou-Macayo, F. Pi, S. Lope Piedrafita, M.D. Baro, J. Sort, P. Vavassori, C. Nogues, O. Benny, B. Sepulveda
“Magnetoplasmonic nanodomains as a novel structure for biomedical Applications” (PLENARY)
International Conference on Fine Particle Magnetism (ICFPM)
Yokohama, Japan Oct. 16-21, 2022
- 13.- **J. Nogués**, A. Lafuente, Z. Li, A. Flucksman, A. Aranda-Ramos, A. Lopez-Ortega, A.G. Roca, P. Guell-Grau, J.L. Tajada, L. Pou-Macayo, F. Pi, S. Lope Piedrafita, M.D. Baro, J. Sort, P. Vavassori, C. Nogues, O. Benny, B. Sepulveda
“Magnetoplasmonic nanodomains as a novel structure for biomedical Applications” (PLENARY)
International Conference on Nanomaterials Nanofabrication and Nanocharacterization
Oludeniz, Turkey April 13-19, 2023
- 14.- J. Sort, Z. Tam, N. Lopez, Z. Ma, M. Peda, J. de Rojas, J.L. Costa-Krämer, A. Quintana, E. Pellicer, **J. Nogués**, E. Menendez
“Shaping the future: energy-efficient magnetic memory and neuromorphic technologies” (PLENARY)
Joint European Magnetic Symposia (JEMS)
Madrid, Spain Aug. 27 – Sept. 1, 2023

Keynote

- 1.- X. Amils, **J. Nogués**, S. Suriñach, M.D. Baró
“Ball-Milling Order-Disorder Transition in Fe-40at%Al” (KEY NOTE)
International Symposium On Metastable, Amorphous And Nanostructured Materials
Wollongong, Australia Dec. 1998
- 2.- J. Sort, **J. Nogués**, X. Amils, S. Suriñach, J.S. Muñoz, M.D. Baró
“Enhancement of Coercivity by Mechanical Alloying Ferromagnetic And Antiferromagnetic Materials” (KEY NOTE)
International Symposium On Metastable, Amorphous And Nanostructured Materials
Dresden, Germany 28 Aug. - Sept. 2 1999
- 3.- J. Sort, J. Nogués, S. Suriñach, J.S. Muñoz, E. Chappel, F. Dupont, G. Chouteau, M.D. Baró
“Structural and Magnetic Characterization of Ball milled hard magnetic (SmCo₅) + antiferromagnetic (NiO, CoO) powders” (KEY NOTE)
International Symposium On Metastable, Amorphous And Nanostructured Materials
Ann Arbor, USA June, 24-29, 2001
- 4.- M.I. Montero, K. Liu, O.M. Stoll, A. Hoffmann, J.J. Ackerman, J.I. Martín, J.L. Vicent, S.M. Baker, T.P. Russell, C.

- Leighton, **J. Nogués**, I.K. Schuller
 “Proximity effect and magnetic nanostructures” (KEY NOTE)
 Trends in Nanotechnology TNT
 Santiago de Compostela, Spain Sept. 9-13, 2002
- 5.- **J. Nogués**, G. Salazar-Alvarez, J. Sort, S. Suriñach, M.D. Baró
 “Size dependent exchange bias in inverteid core-shell (antiferromagnetic-antiferromagnetic) nanoparticles”
 (KEYNOTE)
 Magnetic Nanoparticles: Challenges and Future Prospects
 Leiden, The Netherlands 18-22 June, 2007
- 6.- E. Menedez, J. Sort, M.O. Liedke, T. Strache, J. Fassbender, W. Möller, T. Gemming, A. Weber, L.J. Heyderman, S. Suriñach,, S.C. Deevi, K.V. Rao, J. Sommerlatte, K. Nielsch, **J. Nogués**, M.D. Baro
 “Magnetic nanoscale lithography on FeAl alloys by means of ion irradiation” (Keynote)
 INTERNATIONAL SYMPOSIUM ON METASTABLE, AMORPHOUS AND NANOSTRUCTURED MATERIALS
 Buenos Aires, Argentina 6-10 July, 2008
- 7.- E. Menendez, J. Sort, M.O. Liedke, T. Strache, J. Fassbender, W. Möller, T. Gemming, A. Weber, L.J. Heyderman, S. Suriñach, S.C. Deevi, K.V. Rao, J. Sommerlatte, K. Nielsch, M.D. Baro, **J. Nogués**
 “Direct nanoscale magnetic lithography in on FeAl alloys by means of ion irradiation” (KEYNOTE)
 Trends in Nantechnology
 Oviedo, Spain Spet. 1-5, 2008
- 8.- T. Endo, H. Zhu, K. Morikawa, M. Yokura, **J. Nogués**, J. Colino, K.Endo
 “Peculiar electrical and magnetic properties of La(Ba)MnO3 thin films” (KEYNOTE)
 Academic Symposium Materials Research Society of Japan
 Yokohama, Japan Dec. 7-9, 2009
- 9.- **J. Nogués**, G. Salazar-Álvarez, J.J. Kavich, M. Tanase, A. Mugarza, S. Stepanow, A. Potenza, H. Marchetto, S.S. Dhesi, V. Baltz, A. Weber, L.J. Heyderman, A.K. Petford-Long, O. Heinonen, M.D. Baró, B. Dieny, K.S. Buchanan, A. Hoffmann, P. Gambardella, J. Sort
 “Controlling magnetic vortices in circular dots using exchange bias” (KEYNOTE)
 General Meeting “Quantum effects in Clusters and Nanowires”
 Hasselt, Belgium Nov. 26, 2010
- 10.-A. Lopez-Ortega, M. Estrader, G. Salazar-Alvarez, S. Estarde, D. Tobia, E. Winkler, R.K. Dumas, I. Golosovsky, J. Sort, F. Peiro, S. Suriñach, R.D. Zysler, M.D. Baro, **J. Nogués**
 “Enhanced magnetic properties in bi-magnetic core/Shell nanoparticles” (KEYNOTE)
 International Symposium On Metastable, Amorphous And Nanostructured Materials
 Gijón, Spain June 26 – July 1, 2011
- 11.- J. Sort, M. Guerrero, E. Menendez, J. Fornell, E. Rossinyol, M. Roldan, O. Castell, S. Suriñach, M.D. Baro, A. Vantomme, K. Temst, **J. Nogués**, E. Pellicer
 “Mesoporous semiconductor 3D ordered architectures prepared by nanocasting: (i) oxide dlited magnetic semiconductors and (ii) photolouminiscent anitidots” (KEYNOTE)
 International Symposium On Metastable, Amorphous And Nanostructured Materials
 Torino, Italy June 30 – July 5, 2013
- 12.-M. Estrader, S. Estradé, F. Peiró, A. López-Ortega, I. Golosovsky, G. Salazar-Alvarez, M. Vasilakaki, K.N. Trohidou, M.A. Roldan, M. Varela, D.C. Stanley, M. Sinko, M.J. Pechan, D. J. Keavney, S. Suriñach, M.D. Baró, **J. Nogués**
 "Evidence of an interfacial antiferromagnetic coupling in ferrimagnetic hard-soft core/shell nanoparticles"
 (KEYNOTE)
 International Symposium On Metastable, Amorphous And Nanostructured Materials
 Cancun, Mexico June 30-July 4, 2014

- 13.- M. Estrader, S. Estradé, F. Peiró, A. López-Ortega, I. Golosovsky, G. Salazar-Alvarez, M. Vasilakaki, K.N. Trohidou, M.A. Roldan, M. Varela, D.C. Stanley, M. Sinko, M.J. Pechan, D. J. Keavney, M. Laver, K.L. Krycka, J.A. Borchers, S. Suriñach, M.D. Baró, **J. Nogués**
 “Antiferromagnetic coupling in ferrimagnetic hard-soft core/shell nanoparticles and possible biomedical applications” (KEYNOTE)
 International Conference on Composites/NanoEngineering
 Chengdu, China July, 12-18, 2015
- 14.- M. Estrader, A. López-Ortega, A.G. Roca, G. Salazar-Alvarez, S. Estradé, E. Winkler, I.V. Golosovsky, M. Vasilakaki, K.N. Trohidou, J.D. Ardisson, W.A.A. Macedo, F. Peiró, S. Suriñach, R.D. Zysler, M.D. Baró, **J. Nogués**
 “Size Dependent Magnetism in FeO/Fe₃O₄ Core/Shell Nanoparticles and its Possible Biomedical Applications”
 International Union of Materials Research Societies- International Conference on Advanced Materials (IUMRS-ICAM 2015)
 Jeju Island, Korea Oct. 25-29, 2015
- 15.- A. Lopez-Ortega, A.G. Roca, P. Torruella, M. Petrecca, S. Estarde, F. Peiro, V. Puntos, **J. Nogués**
 “Formation of Mn₃O₄/Fe₃O₄ hollow oxide nanoparticles by galvanic replacement” (KEYNOTE)
 International Union of Materials Research Societies – International Conference of Advanced Materials (IUMRS-ICAM)
 Kyoto, Japan Aug. 27-Sept. 1, 2017
- 16.- **J. Nogués**, Z. Li, A. Aranda-Ramos, A. Lopez-Ortega, P. Guell-Grau, J.L. Tajada, L. Pou-Macayo, F. Pi, S. Lope Piedrafita, M.D. Baro, J. Sort, P. Vavasori, C. Nogués, and B. Sepulveda
 “Magnetoplasmonic Nanodomains as a Novel Structure for Biomedical Applications” (KEYNOTE)
 International Union of Materials Research Societies – International Conference on Electronic Materials 2018 (IUMRS-ICEM)
 Daejeon, Korea Aug. 19-24, 2018
- 17.- J. Sort, A. Quintana, C. Navarro-Senent, J. Fornell, E. Menendez, M.D. Baro. E. Pellicer, R. Cuadrado, R. Robles, P. Ordejon, **J. Nogués**
 “Enhanced energy efficiency in voltage-actuated magnetic nanoporous alloy films and patterned structures” (KEYNOTE)
 International Conference on Innovative Applied Energy
 Oxford, United Kingdom March 14-15, 2019
- 18.- P. Torruella, A. Ruiz-Caridad, M. Walls, A.G. Roca, A. Lopez-Ortega, J. Blinco-Portals, L. Lopez-Conesa, **J. Nogués**, S. Estarde, F. Peiro
 “Inversion parameter in spinel Fe₃O₄/Mn₃O₄ core/shell nanoparticles at atomic resolution” (KEYNOTE)
 Nanotech France
 Paris, France June 26-28, 2019
- 19.- J. Sort, C. Navarro-Senent, A. Quintana, J. Fornell, E. Menendez, **J. Nogués**, E. Pellicer
 “Magneto-ionic effects in nanoporous lithographed structures: Reducing Energy consumption in magnetoelectronic devices” (KEYNOTE)
 International Symposium On Metastable, Amorphous And Nanostructured Materials (ISMANAM)
 Chennai, India July 8-12, 2019
- 20.- Z. Li, A. Aranda-Ramos, P. Guell- Grau, J.L. Tajada, L. Pou-Moncayo, S. Lope Piedrafita, F. Pi, M.D. Bari, J. Sort, C. Nogués, **J. Nogués**, B. Sepulveda
 “Multifunctional magneto-plasmonic nanodomains for combined magnetic manipulation multi-modal imaging and photo-thermal therapies” (KEYNOTE)
 International Symposium On Metastable, Amorphous And Nanostructured Materials (ISMANAM)
 Chennai, India July 8-12, 2019
- 21.- S. Estarde, P. Torruella, A. Ruiz, M. Walls, A.G. Roca, A. López-Ortega, J. Blanco-Portals, L. López-Conesa, **J. Nogués**, F. Peiro
 “EELS determination of cation inversion in spinel oxide nanoparticles” (KEYNOTE)

Materials Science Engineering Congress
Darmstad, Germany Sept. 22-25, 2020 (On-line conference)

- 22- J. Sort, Z. Tam, N. Lopez, Z. Ma, I. Spasojevic. M. Peda, J. de Rojas, A. Quintana, E. Pellicer, **J. Nogués**, E. Menendez
“Magneto-ionic for low-power memory and neuromorphic applications” (KEYNOTE)
NanoBalkan Conference
Tirana, Albania Oct. 16-20, 2023
- 23.- **J. Nogués**, J. Muro-Cruces, E. Fantechi, F. Özel, A. Lafuente, J.F. Lopez-Barbera A. Lopez-Ortega, B. Sepulveda, A.G. Roca
“Synthesis of Anisometric Fe₃O₄ nanoparticles” (KEYNOTE)
Nanoseires Conference on Global Nanotechnology
Lisboa, Portugal June 17-19, 2024
- 24.- **J. Nogués**, A. Lafuente, A. Flucksman, A.G. Roca, C. Nogues, O. Benny, B. Sepulveda
“Magnetoplasmonic nanocapsules as wirelessly controlled nanotherapies” (KEYNOTE)
International Conference on Materials Science Engineering and Technology
Singapore, Spingapore Sept. 10-12, 2024

Invited

- 1.- **J. Nogués**
"Exchange Bias and its Connection to Interface Structure in FeF₂/Fe Bilayers"(INVITED)
American Physical Society Meeting
Kansas City, USA March 17-21, 1997
- 2.- B. Miller, B. Hill, J. Johsson, V. Ström, K.V. Rao, **J. Nogués**, I.K. Schuller, E.D. Dahlberg
"Measurements of the Ferromagnetic/Antiferromagnetic Exchange Coupling Energy in Co/CoO and Fe/FeF₂ Layers"
(INVITED)
Int. Conf. on Magnetism and Magnetic Materials
San Francisco, USA Jan. 6-9, 1998
- 3.- M.D. Baró, X. Amils, **J. Nogués**, S. Suriñach, J.S. Muñoz, S. Gialanella
“Order-Disorder Transitions in Nanocrystalline Ball Milled Fe-40Al at. % Alloy” (INVITED)
NANOS 98
Stockholm, Sweden 15-19 June 1998
- 4.- G. Güntherodt, P. Miltényi, M. Gruyters, **J. Nogués**, I.K. Schuller, C. Mathieu, M. Bauer, J. Bassbender, B. Hillebrands, R. Jungblut, J. Kohlhepp, A. Reinders
“Spin Waves in Exchange Bias Systems Studied By Light Scattering” (INVITED)
Int. Conf. on Magnetism and Magnetic Materials
Miami, USA 9-12 Nov. 1998
- 6.- K.V. Rao, R. Ortega, **J. Nogués**, J.S. Muñoz, A. Inoue
“Local Magnetic Structure of Bulk Glassy Nd-Fe-Al: Low Field ac-Susceptibility and High Field dc- Magnetic Studies” (INVITED)
MRS-Spring Meeting
San Francisco, USA 5-9 April, 1999
- 7.- X. Amils, C. Ballesteros, M.D. Baró, S. Gialanella, M.R. Ibarra, A. Hernando, L. Lutteroti, C. Marquina, J.S. Muñoz, **J. Nogués**, S. Suriñach
“Magnetic, Structural, Mechanic and Thermal Properties of Nanostructured FeAl Alloys During Disordering and Thermal Reordering” (INVITED)
Int. Workshop on Metastable Phases

Bologna, Italy

7-9 April 1999

- 8.- P. Miltenyi, M. Gierlings, U. May, G. Guntherodt, **J. Nogués**, I.K. Schuller
“Microscopic Origins of Exchange Bias at Antiferromagnetic/Ferromagnetic Interfaces” (INVITED)
Frontiers in Magnetism
Stockholm, Sweden 12-15 Aug. 1999
- 9.- M.R. Fitzsimmons, P. Yashar, C. Leighton, I.K. Schuller, **J. Nogués**, C.F. Majkrzak, J. Dura
“45° Exchange Coupling Across the Fe-FeF₂ interface” (INVITED)
Int. Conf. on Magnetism and Magnetic Materials
San Jose, USA 15-18 Nov. 1999
- 101.- I.K. Schuller, A. Hoffmann, Y. Jaccard, M.C. Cyrille, F. Sharifi, J. Martín, M. Velez, J.L. Vicent, **J. Nogués**, J.M. George, M. Grimsditch, M.J. van Bael, K. Temst, C. Van Haesendonck, V.V. Moshchalkov, Y. Bruyseraede
“Flux pinning in a superconductor by arrays of submicron magnetic dots” (INVITED)
Int. Conference on Materials and Mechanisms of Superconductivity and High temperature Superconductors
Houston, USA 20-25 Feb. 2000
- 11.- X. Amils, **J. Nogués**, S. Suriñach, J.S. Muñoz, M.D. Baró
“Disordering and ordering process in ball milled Fe-40 Al at. % intermetallic alloys” (INVITED)
Int. Workshop in Interface Controlled Materials: Research and Design
St. Petersburg, Russia June 7-9 2000
- 12.- D.G. Morris, M.A. Muñoz-Morris, X. Amils, J. Nogués, S. Suriñach, M.D. Baró
“Disordering of B2 intermetallics by ball milling, with particular attention to FeAl” (INVITED)
International Symposium On Metastable, Amorphous And Nanostructured Materials
Oxford, United Kingdom July, 9-14, 2000
- 13.- I.K. Schuller, C. Leighton, K. Liu, **J. Nogués**, A. Hoffman, M. Fitzsimmons, P. Miltenyi, G. Guntherodt
“Exchange Bias” (INVITED)
International Conference on Magnetism 2000
Recife, Brasil 6-11 Aug. 2000
- 14.- J. Sort, **J. Nogués**, S. Suriñach, J.S. Muñoz, M.D. Baró
“Exchange coupling enhancement of the room temperature coercivity in Ball milled antiferromagnetic ferromagnetic composites” (INVITED)
NANOS 2000
Sendai, Japan Aug. 20-25 2000
- 15.- J. Baruchel, E. Boller, H. Klein, P.C. de Camargo, **J. Nogués**
“Synchrotron Radiation topographic observation of ‘exotic’ magnetic domains”
Conference on High Resolution X-ray Diffraction and Topography
Ustron-Jaszowiec, Poland Sept. 13-15, 2000
- 16.- **J. Nogués**, C. Leighton, I.K. Schuller, M. Fitzsimmons, A. Hoffmann, L. Morellon, M.R. Ibarra
“Unusual properties FeF₂-Fe and MnF₂-Fe bilayers: new challenges for exchange bias properties” (INVITED)
Int. Workshop on “Exchange Bias in Heterolayer systems”
Duisburg, Germany Oct. 27, 2000
- 17.- **J. Nogués**
“Giant magnetostriction and magnetostriction magnetic domain imaging in submicron magnetic dots” (INVITED)
American Physical Society Meeting
Seattle, USA March, 12-16, 2001
- 18.- C. Leighton, M. Fitzsimmons, P. Yashar, A. Hoffmann, **J. Nogués**, J. Dura, C.F. Marjczak, I.K. Schuller
“Magnetization Reversal Asymmetry and Exchange Bias” (INVITED)
Symp. on Metallic Multilayers
Aachen, Germany June, 24-29, 2001

- 19.- **J. Nogués**, J. Sort, S. Suriñach, J.S. Muñoz, M.D. Baró
 “Coercivity enhancement in ferromagnetic antiferromagnetic composites” (INVITED)
 Reunión Nacional de Estado Solido
 Calella, Spain Feb. 6-8, 2002
- 20.- E.D. Dahlberg, T. Gredig, I.N. Krivorotov, C. Leighton, **J. Nogués**, I.K. Schuller, A.M. Goldman
 “The use of the anisotropic magnetoresistance to study exchange coupling” (INVITED)
 INTERMAG
 Amsterdam, Netherlands April 29- May 2, 2002
- 21.- **J. Nogués**, C. Leighton, M. Fitzsimmons, A. Hoffmann, K. Liu, M. Pechan, I.N. Krivorotov, E.D. Dahlberg, I.K. Schuller
 “Unusual properties in exchange biased bilayers” (INVITED)
 IUMRS - International Conference on Electronic Materials
 Xian, China June 10-14, 2002
- 22.- K. Liu, **J. Nogués**, C. Leighton, I.K. Schuller, S.M. Baker, M. Tuominen, T.P. Russel, H. Masuda, K. Nishio
 “Exchange biased magnetic nanostructures” (INVITED)
 Symposium on Magnetoelectronics and Superconducting Electrical Engineering
 Beijing, China Aug. 15-18, 2002
- 23.- E.D. Dahlberg, I.N. Krivorotov, C. Leighton, **J. Nogués**, I.K. Schuller
 “Complex exchange anisotropy in MnF₂/Fe bilayers” (INVITED)
 International Materials Research Congress
 Cancún, Mexico Aug. 25-29, 2002
- 24.- J. Sort, **J. Nogués**, S. Suriñach, J.S. Muñoz, M.D. Baró
 “Coercivity enhancement of Sr-ferrites in ferromagnetic-antiferromagnetic composites processed by ball milling and subsequent heat treatments” (INVITED)
 International Symposium On Metastable, Amorphous And Nanostructured Materials
 Seoul, Korea Sept. 8-12, 2002
- 26.- M.R. Fitzsimmons, C. Leighton, **J. Nogués**, A. Hoffmann, K. Liu, C.F. Majkrzak, J.A. Dura, J.R. Groves, R.W. Spinger, P.N. Arendt, V. Leiner, H. Lauter, H. Fritzsche, I.K. Schuller
 “Magnetization reversal in exchange biased films” (INVITED)
 International Conference on Surface X-rays and Neutron Scattering
 Lake Tahoe, USA Sept. 23-27, 2002
- 27.- E.D. Dahlberg, I.N. Krivorotov, C. Leighton, **J. Nogués**, I.K. Schuller
 “Complex exchange anisotropy in Fe/MnF₂ bilayers” (INVITED)
 MRS Fall Meeting
 Boston, USA Dec. 2-6, 2002
- 28.- I.K. Schuller, M.I. Montero, I.V. Roshchin, J.I. Martín, M. Vélez, **J. Nogués**, A. Hoffmann, P. Prieto, J.L. Vicent, O. Stoll, K. Liu, S.M. Baker, T.P. Russell, C. Leighton, H. Masuda, K. Nishio
 “Nanostructures and the proximity effect” (INVITED)
 International Workshop on Magnetism, Hysteresis and the FORC method
 Davis, USA April 25-27, 2003
- 29.- T. Endo, K. Yoshii, M. Ogata, T. Sakurada, **J. Nogués**, J. Colino
 “LBMO thin film fabrication and nano double structures and microwave magnetic properties” (INVITED)
 International Conference on Composites/Nano Engineering
 New Orleans, USA July, 20-26, 2003
- 30.- K. Liu, L. Zhao, P. Klavins, F.E. Osterloh, J. Nogués, C. Leighton, H. Matsuda, K. Nishio, I.V. Roshchin, I.K. Schuller
 “Synthesis and thermal stability on nanomagnets” (INVITED)
 International Conference on Composites/Nano Engineering
 New Orleans, USA July, 20-26, 2003

- 31.- I.N. Krivorotov, T. Gredig, C. Leighton, **J. Nogués**, I.K. Schuller, E.D. Dahlberg
 “A microscopic understanding of exchange anisotropy in Fe/MnF₂ bilayers” (INVITED)
 International Colloquium on Magnetic Films and Surfaces
 Madrid, Spain July, 22-25, 2003
- 32.- **J. Nogués**, J. Sort, S. Suriñach, J.S. Muñoz, M.D. Baró, S. de Brion, G. Chouteau, V. Skumryev, G.C. Hadjipanayis, E. Pina, J.M. Gonzalez, A. Hernando
 “Coercivity and squareness enhancement by ferromagnetic – antiferromagnetic exchange coupling” (INVITED)
 International Conference on Magnetism
 Roma, Italy July 27- Aug. 1, 2003
- 33.- I.K. Schuller, **J. Nogués**, C. Leighton, K. Liu, M. Fitzsimmons, B. Berschoten, G. Güntherodt
 “Structure, reversal and exchange bias in ferromagnetic-antiferromagnetic bilayers” (INVITED)
 International Conference on Magnetism
 Roma, Italy July 27- Aug. 1, 2003
- 34.- E.D. Dahlberg, I.N. Krivorotov, C. Leighton, **J. Nogués**, I.K. Schuller
 “A physical model for exchange bias: exchange anisotropy in Fe/MnF₂” (INVITED)
 International Materials Research Congress
 Cancún, Mexico Aug. 17-21, 2003
- 35.- J. Sort, **J. Nogués**, A. Zhilyaev, M. Zielinska, S. Suriñach, J.S. Muñoz, M. Wojcik, E. Jedryka, S. Nadolski, M.D. Baró
 “Severe plastic deformation effects induced in cobalt by ball milling and high pressure torsion” (INVITED)
 International Symposium On Metastable, Amorphous And Nanostructured Materials
 Foz d’Iguaçu, Barizil Aug. 24-28, 2003
- 36.- **J. Nogués**, J. Sort, V. Langalis, S. Doppiu, S. Suriñach, J.S. Muñoz, M.D. Baró, V. Skumryev, G.C. Hadjipanayis, S. de Brion, G. Chouteau
 “Coercivity enhancement in antiferromagnetic-ferromagnetic (oxide-metal) composites” (INVITED)
 IUMRS-ICAM
 Yokohama, Japan Oct. 8-13, 2003
- 37.- **J. Nogués**, V. Langalis, J. Sort, S. Doppiu, B. Dieny, Ch. Laurent, S. Suriñach, J.S. Muñoz, M.D. Baró
 “Structural and Magnetic properties of metallic-oxide nanocomposites obtained from the reduction of oxides” (INVITED)
 Satellite Seminar on Variety of Oxide Materials and Properties
 Tsukuba, Japan Oct. 14, 2003
- 38.- J. Sort, S. Suriñach, J.S. Muñoz, M.D. Baró, M. Wojcik, E. Jedryka, S. Nadolski, N. Sheludko, **J. Nogués**
 “Role of stacking faults in the structural and magnetic properties of ball milled Co” (INVITED)
 Materials Science and Technology 2003 (Fall Meeting of the TMS Society)
 Chicago, USA Nov. 9-12, 2003
- 39.- J. Eisenmenger, Z. Li, O. Petravic, I.V. Roshchin, K. Liu, **J. Nogués**, C. Leighton, H. Masuda, K. Nishio, I.K. Schuller
 “Exchange biased nanostructures” (INVITED)
 Deutsche Physikalische Gesellschaft (DPG)
 Regensburg, Germany March 8-12, 2004
- 40.- J. Eisenmenger, W. Keune, T. Klein, V. Kuncser, K. Liu, W.A.A. Macedo, M.D. Martins, **J. Nogués**, R. Röhlberger, R. Rueffer, B. Sahoo, I.K. Schuller
 “Ferromagnetic spin structure in exchange biased Fe/MnF₂ and Fe/FeF₂ layer systems” (INVITED)
 European Workshop on Nuclear Resonant Scattering for the Study of Nanoscale Structures
 Grenoble, France 24 - 26 March 2004
- 41.- **J. Nogués**, V. Skumryev, S. Stoyanov, Y. Zhang, G. Hadjipanayis, D. Givord
 “Overcoming thermal fluctuations in ferromagnetic nanostructures using exchange bias” (INVITED)

International Conference on Composites/Nano Engineering (ICCE-11)
Hilton Head, USA 8-14 Aug. 2004

- 42.- **J. Nogués**, V. Skumryev, S. Stoyanov, Y. Zhang, G. Hadjipanayis, D. Givord, V. Langlais, J. Sort, S. Doppiu, Ch. Laurent, B. Dieny, J.S. Muñoz, S. Suriñach, M.D. Baró
“Exchange Bias in nanoparticles” (INVITED)
International Materials Research Congress
Cancun, Mexico 22-26 Aug. 2004
- 43.- I.N. Krivorotov, C. Leighton, **J. Nogués**, I.K. Schuller, E.D. Dahlberg
“A microscopic understanding of exchange anisotropy in Fe/MnF₂ bilayers”
International Materials Research Congress
Cancun, Mexico 22-26 Aug. 2004
- 44.- V. Langlais, S. Doppiu, J. Sort, B. Dieny, Ch. Laurent, S. Suriñach, V. Skumryev, J.S. Muñoz, M.D. Baró, **J. Nogués**
“Synthesis and characterization of ferromagnetic – antiferromagnetic nanocomposites by controlled reduction under H₂ atmosphere” (INVITED)
International Symposium On Metastable, Amorphous And Nanostructured Materials
Sendai, Japan 22-26 Aug. 2004
- 45.- **J. Nogués**
“Exchange bias in nanostructures” (INVITED)
ULTRABIAS Summer School
Anglet, France Sept. 12-16, 2004
- 46.- B. Beschoten, S. Oertker, A. Tillmanns, G. Güntherodt, C. Leighton, **J. Nogués**, I.K. Schuller
“All-optical static and dynamic magnetization reversal in exchange bias systems” (INVITED)
ULTRABIAS Summer School
Anglet, France Sept. 12-16, 2004
- 47.- **J. Nogués**, V. Skumryev, S. Stoyanov, Y. Zhang, G. Hadjipanayis, D. Givord
“Overcoming Thermal Fluctuations in Ferromagnetic Nanostructures Using Exchange Bias” (INVITED)
International Workshop on Exchange Bias in Magnetic Nanostructures
Anglet, France Sept. 16-18, 2004
- 48.- V. Skumryev, S. Stoyanov, Y. Zhang, G. Hadjipanayis, D. Givord, J. Sort, S. Suriñach, J.S. Muñoz, D. Baró, **J. Nogués**
“Overcoming Thermal Fluctuations in Ferromagnetic Nanostructures Using Exchange Bias” (INVITED)
International Conference in Fine Particle Magnetism
London, United Kingdom Sept. 20-22, 2004
- 49.- **J. Nogués**
“Magnetic nanoparticles: coping with the ever increasing magnetic recording density” (INVITED)
NanoCluster School
Madrid, Spain Oct. 25-28, 2004
- 50.- J. Sort, F. Garcia, V. Baltz, S. Auffret, B. Rodmacq, M. Fraune, G. Güntherodt, M.D. Baró, **J. Nogués**, B. Dieny
“Exchange bias effects in systems with perpendicular-to-plane magnetic anisotropy” (INVITED)
Int. Conf. on Magnetism and Magnetic Materials
Jacksonville, USA Nov. 7-11, 2004
- 51.- **J. Nogués**, V. Skumryev, S. Stoyanov, Y. Zhang, G. Hadjipanayis, D. Givord, K. Liu, C. Leighton, H. Masuda, K. Nishio, I.V. Roshchin, I.K. Schuller, J. Esenmenger, J. Sort, J.S. Muñoz, S. Suriñach, M.D. Baró
“Overcoming thermal fluctuations in ferromagnetic nanostructures using exchange bias” (INVITED)
American Vacuum Society Meeting
Anaheim, USA Nov. 14-19, 2004
- 52.- **J. Nogués**, J. Sort, A. Hoffmann, S.H. Chung, K. Buchanan, M. Grimsditch, M.D. Baró, B. Dieny

- “Exchange Biased vortices in submicron ferromagnetic-antiferromagnetic dots” (INVITED)
 Encontro Nacional de Física da Materia Condensada
 Santos, Brazil May 10-14, 2005
- 53.- D. Givord, C. Macovei, F. Ingwiller, V.M.T.S. Barthem, **J. Nogués**, V. Skumryev, J. Sort
 “Exchange coupled nanostructured magnetic materials” (INVITED)
 Matter, Materials and Devices Meeting
 Genova, Italy June, 22-25, 2005
- 54.- J. Sort, **J. Nogués**, S. Suriñach, J.S. Muñoz, I. Margiolaki, A. Fitch, M. Wojcik, E. Jedryka, S. Nadolski, A. Zhilyaev,
 M.D. Baró
 “Microstructure, phase transformations, mechanical and magnetic properties of disordered cobalt” (INVITED)
 INTERNATIONAL SYMPOSIUM ON METASTABLE, AMORPHOUS AND NANOSTRUCTURED
 MATERIALS
 Paris, France July 3-7, 2005
- 55.- **J. Nogués**, M. Gich, A. Roig, J. Sort, C. Frontera, M. Popovici, V. Skumryev, W.A.A. Macedo, H.R. Rechenberg, E.
 Molins
 “Large room temperature coercivity in ϵ -Fe₂O₃ nanoparticles” (INVITED)
 International Conference on Composites/Nano Engineering (ICCE-12)
 Santa Cruz de Tenerife, Sapin Aug. 1-6, 2005
- 56.- J. Sort, A. Hoffmann, S.H. Chung, K. Buchanan, G. Salazar-Alvarez, M. Grimsditch, M.D. Baró, B. Dieny, **J. Nogués**
 “Exchange biased vortices in lithographed ferromagnetic-antiferromagnetic dots” (INVITED)
 International Materials Research Congress
 Cancun, Mexico 21-25 Aug. 2005
- 57.- M. Gich, A. Roig, C. Frontera, E. Molins, J. Sort, **J. Nogués**, M. Popovici
 “Sol-gel synthesis of epsilon-Fe₂O₃ nanoparticles and tuning of the material magnetic properties” (HIGHLIGHTED
 ABSTRACT)
 European Congress on Advances Materials and Processes
 Prague, Czech Republic 5-8 Sept. 2005
- 58.- T. Endo, H. Zhu, M. Okada, A. Akiba, K. Nakanishi, J. Nogués, J.S. Muñoz, J. Colino
 “Phase separation and magnetostriction in LBMO thin films” (INVITED)
 International Conference on Optoelectronic Materials and Thin Films for Advanced Technology
 Kochi, India 24-27 Oct. 2005
- 59.- W.A.A. Macedo, M.D. Martins, B. Sahoo, V. Kuncer, W. Keune, J. Eisenmenger, R. Rohlsberger, J. Nogués, K.
 Liu, K. Schlage, I. Felner, I.K. Schuller, R. Ruffer
 “CEMS and NRS investigation of spin structure in exchange biased Fe/MnF₂ bilayers” (INVITED)
 Latin American Congress of Surface Science and its Applications
 Angra dos Reis, Brazil 5-9 Dec. 2005
- 60.- J. Sort, S. Brück, V. Baltz, S. Suriñach, J.S. Muñoz, B. Dieny, M.D. Baró, **J. Nogués**
 “Exploiting exchange bias length scales to fully Taylor double shifted hysteresis loops” (INVITED)
 Reunión Nacional de Física de Estado Solido
 Alicante, Spain 1-3 Feb. 2006
- 61.- W.A.A. Macedo, M.D. Martins, B. Sahoo, V. Kuncer, W. Keune, J. Eisenmenger, R. Rohlsberger, O. Leopold, **J. Nogués**, K. Liu, K. Schlage, I. Felner, R. Ruffer, I.K. Schuller.

“Investigation of spin structure in exchange biased Fe/MnF₂ and Fe/FeF₂ bilayers” (INVITED)
Brazilian-German Workshop on Applied Surface Science
Rio de Janeiro, Brazil 3-7 April 2006

62.- J. Sort, A. Concustell, E. Menéndez, S. Suriñach, K.V. Rao, S.C. Deevi, **J. Nogués**, M.D. Baró
“Ferromagnetism induced by structural disorder in Fe₆₀Al₁₅₀ intermetallic alloy: A way to fabricate periodic arrays of micron and submicron magnetic structures” (INVITED)
Workshop on Metastable and Nanostructured Materials
Rio de Janeiro, Brazil 5-8 June, 2006

63.- D. Givord, C. Macovei, F. Ingwiller, V.M.T.S. Barthem, **J. Nogués**, V. Skumryev, J. Sort
“Exchange coupled nanostructured magnetic materials” (INVITED)
Workshop on Metastable and Nanostructured Materials
Rio de Janeiro, Brazil 5-8 June, 2006

64.- **J. Nogués**, G. Salazar-Alvarez, J. Sort, A. Uheida, M. Muhammed, S. Suriñach, M.D. Baró
“Tuning of the superparamagnetic blocking temperature of γ -Fe₂O₃ nanoparticles in bi-magnetic core-shell structures” (INVITED)
International Workshop on Non-Crystalline Solids
Gijon, Spain 20-23 June, 2006

65.- **J. Nogués**, J. Sort, S. Brück, A. Hoffmann, K.S. Buchanan, G. Salazar-Alvarez, V. Baltz, S.H. Chung, V. Novosad, S. Suriñach, J.S. Muñoz, B. Dieny, M.D. Baró

“Tailoring hysteresis loops of ferro-/antiferromagnetic systems by imprinting different magnetization states in the antiferromagnet” (INVITED)
Joint European Magnetic Symposia
San Sebastian, Spain 26-30 June, 2006

66.- J. Sort, K.S. Buchanan, M. Grimsdicht, S.H. Chung, V. Novosad, A. Hoffmann, G. Salazar-Alvarez, M. D. Baró, B. Dieny, **J. Nogués**
“Using exchange bias to control magnetic vortices” (INVITED)
Joint European Magnetic Symposia
San Sebastian, Spain 26-30 June, 2006

67.- **J. Nogués**, J. Sort, V. Langlais, V. Skumryev, S. Suriñach, J.S. Muñoz, M.D. Baró
“Exchange bias in nanostructures: at the Herat of spintronic devices” (INVITED)
European Magnetic Sensors and Actuators
Bilbao, Spain 3-7 July, 2006

68.- **J. Nogués**, G. Salazar-Alvarez, J. Sort, A. Uheida, M. Muhammed, S. Suriñach, M.D. Baró
“Tuning of the superparamagnetic blocking temperature of γ -Fe₂O₃ nanoparticles in bi-magnetic core-shell structures” (INVITED)
International Conference of Composites and Nano-Engineering
Broomfield, USA 3-7 July, 2006

69.- **J. Nogués**, J. Sort, A. Hoffmann, K.S. Buchanan, S.H. Chung, M. Grimsdicht, V. Novosad, G. Salazar-Alvarez, M. D. Baró, B. Dieny
“New asymmetric reversal mode in ferromagnetic antiferromagnetic dots due to imprinted vortices” (INVITED)
International Conference on Magnetism
Kyoto, Japan 20-25 Aug., 2006

70.- J. Sort, A. Concustell, E. Menendez, S. Suriñach, K.V. Rao, J. Farran, S.C. Deevi, **J. Nogués**, M.D. Baró
“Arrays of micron and submicron magnetic structures prepared by nanoindentation of non-magnetic substrates” (INVITED)

International Symposium on Metastable and Nano Materials”
Warsaw, Poland 27-31 Aug. 2006

- 71.-**J. Nogués**, G. Salazar-Alvarez, J. Sort, A. Uheida, M. Muhammed, S. Suriñach, M.D. Baró
“Tuning of the superparamagnetic blocking temperature of γ -Fe₂O₃ nanoparticles in bi-magnetic core-shell structures”
(INVITED)
International Open Seminar on Oxides and Nano-magnetics
Tsu, Japan 26,31 Aug. 2006
- 72.-G. Salazar-Alvarez, J. Sort, A. Uheida, M. Muhammed, S. Suriñach, M.D. Baro, **J. Nogués**
“Enhancing the superparamagnetic blocking temperature of nanoparticles in bi-magnetic core-shell structures”
(INVITED)
European Materials Research Society Fall Meeting
Warsaw, Poland 4-8 Sept. 2006
- 73.-**J. Nogués**
“Using exchange bias to control magnetic vortices” (INVITED)
American Physical Society Meeting
Denver, USA 5-9 March, 2007
- 74.-**J. Nogués**, J. Sort, V. Langlais, V. Skumryev, S. Suriñach, M.D. Baró
“Exchange bias in nanostructures : at the heart of spintronic devices” (INVITED)
International Vacuum Congress
Stockholm, Sweden 2-6 July, 2007
- 75.-A. Hoffmann, J. Sort, K.S. Buchanan, K.Y. Guslienko, G. Salazar-Alvarez, E. Menendez, S.H. Chung, V. Novosad, M. Grimsditch, J.E. Pearson, A. Bollero, M.D. Baró, M. Miron, B. Rodmacq, B. Dieny, **J. Nogués**
“Exchange biased vortices” (INVITED)
Symposium on Metallic Multilayers
Perth, Australia 15-19 Oct. 2007
- 76.-J. Sort, E. Menedez, M.O. Leidke. T. Strache, J. Fassbender, T. Gemming, A. Weber, L.J. Heyderman, S. Suriñach, A. Concustell, K.V. Rao, S.C. Deevi, M.D. Baró, **J. Nogués**
“Micro- and nanoscale patterning of paramagnetic FeAl alloys by means of nanoindentation or selective ion irradiation” (INVITED)
Workshop on Nanolithography
Zaragoza, Spain 23-25 Oct. 2007
- 77.-J. Sort, A. Hoffmann, K.S. Buchanan, J.E. Pearson, E. Menéndez, G. Salazar-Álvarez, V. Novosad, M. Miron, P. Gambardella, A. Weber, L.J. Heyderman, M.D. Baró, B. Rodmacq, B. Dieny, **J. Nogués**
“Controlling magnetic vortices in circular and elliptical dots using exchange bias” (INVITED)
Int. Conf. on Magnetism and Magnetic Materials
Tampa, USA 5-9 Nov. 2007
- 78.-**J. Nogués**, G. Salazar-Alvarez, A. Lopez-Ortega, J. Sort, S. Suriñach, M.D. Baró
“Exchange bias in inverted AFM core/FM shell nanoparticles” (INVITED)
Workshop on Recent Trends on Nanomagnetism
Leuven, Belgium 5 Feb. 2008
- 79.-E. Menedez, J. Sort, M.O. Liedke, J. Fassbender, T. Gemming, A. Weber, L.J. Heyderman, S. Suriñach, A. Concustell, K.V. Rao, S.C. Deevi, M.D. Baro, **J. Nogués**
“Micro-/nano-scale magnetic patterning of paramagnetic FeAl intermetallic alloys” (INVITED)
Winter School – Women in Nano
Krannjska Gora, Slovenia 7-9 Fe. 2008
- 80.- I.B. Golosovsky, G. Salazar-Alvarez, J. Sort, J. Nogués, M.A. Gonzalez
“Diffraction studies of the core-shell system” (INVITED)

Petersburg Nuclear Physics Institute Winter School
St. Petesburg, Russia Feb. 25 – March. 1, 2008

- 81.- **J. Nogués**, G. Salazar-Alvarez, A. Lopez-Ortega, J. Sort, S. Suriñach, M.D. Baro
“Exchange bias in inverted AFM-core/FM-shell nanoparticles” (INVITED)
First Nordic Workshop on Spintronics and Nanomagnetism
Gimo, Sweden April 22-24, 2008
- 82.- **J. Nogués**, V. Skumryev, J. Sort, S. Stoyanov, D. Givord
“Exchange-bias stabilized magnetism in Co nanoparticles” (INVITED)
International Conference on Clusters on Surfaces
Warnemünde-Rostock, Germany 25-29 May, 2008
- 83.- J. Sort, E. Menedez, M.O. Liedke, T. Strache, J. Fassbender, T. Gemming, A. Weber, L.J. Heyderman, S. Suriñach, K.V. Rao, S.C. Deevi, M.D. Baro, **J. Nogués**
“Magnetic lithography on paramagnetic FeAl intermetallic alloys by selective ion irradiation” (INVITED)
International Conference on Nanostructured Materials
Rio de Janeiro, Brazil 1-6 June, 2008
- 84.- W.A.A. Macedo, B. Sahoo, J. Eisenmenger, R. Rohlsberger, M.D. Martins, V. Kuncer, O. Leupold., **J. Nogués**,
K. Liu, K. Schlage, I. Felner, W. Keune, I.K. Schuller, R. Ruffer
“Direct measurement of depth dependent spin structure during magnetization reversal in exchange coupled bilayers”
(INVITED)
International Conference on Synchrotron Radiation in Materials Science
Campinas, Brazil 20-23 July, 2008
- 85.- E. Menendez, J. Sort, M.O. Liedke, T. Strache, J. Fassbender, W. Möller, T. Gemming, A. Weber, L.J. Heyderman, S. Suriñach, S.C. Deevi, K.V. Rao, J. Sommerlatte, K. Nielsch, M.D. Baro, **J. Nogués**
“Direct generation of nanoscale ferromagnetic dots by selective ion irradiation of paramagnetic FeAl alloys”
(INVITED)
International Conference on Ion Beam Modification of Materials
Dresden., Germany Aug. 31-Sept. 5, 2008
- 86.- I. Golosovky, G. Salazar-Alvarez, J. Sort, **J. Nogués**, M.A. Gonzalez
“Diffraction studies of the novel heterogenic nanosystems ‘core-shell’ with ‘exchange bias’” (INVITED)
Low Dimensional Systems International Meeting
Rosto-on-Don, Russia 5-9 Sept. 2008
- 87.- T. Endo, D. Ashida, H. Zhu, B. Li, **J. Nogués**, J. Colino, K. Endo
“Phase separation and magnetostriction in LBMO thin films” (INVITED)
International Conference on Surfaces Coatings and Nanostructured Materials (NANOSMAT)
Barcelona, Spain Oct. 21-24, 2008
- 88.- **J. Nogués**, A. López-Ortega, M. Estrader, G. Salazar-Alvarez, J. Sort, S. Suriñach, M.D. Baró
“Exchange bias in inverted antiferromagnetic-ferrimagnetic core-shell nanoparticles” (INVITED)
Villa Conference of Complex Oxide Heterostructures
Orlando, USA Nov. 2-6, 2008
- 89.- A. Hoffmann, J. Sort, K.S. Buchanan, K.Y. Guslienko, G. Salazar-Alvarez, E. Menendez, S.H. Chung, V. Novosad, M. Grimsditch, J.E. Pearson, S.D. bader, A. Bollero, M.D. Baro, M. Miron, B. Rodmaq, B. Dieny, **J. Nogués**
“Exchange biased vortices” (INVITED)
International Workshop on Vortex Dynamics in Confined Magnetic Thin Films
Busan, Korea Dec. 8-9, 2008
- 90.- A. Hoffmann, J. Sort, K.S. Buchanan, K.Y. Guslienko, G. Salazar-Alvarez, E. Menendez, S.H. Chung, V. Novosad,

- M. Grimsditch, J.E. Pearson, A. Bollero, M.D. Baro, M. Miron, B. Rodmaq, B. Dieny, **J. Nogués**
 "Exchange biased vortices" (INVITED)
 Asian Magnetism Conference
 Busan, Korea Dec. 10-13, 2008
- 91.-T. Endo, H. Zhu, K. Morikawa, J. Colino, **J. Nogués**, K. Endo
 "Enigmatic electrical and magnetic properties of La-Ba-Mn-O thin films (plasma effects)" (INVITED)
 International Balkan Workshop on Applied Physics
 Constanta, Romania July 6-8, 2009
- 92.-J. Sort, E. Menéndez, A. Varea, F. Pi, S. Suriñach, M. D. Baró, **J. Nogués**
 "Nanoscale Magnetic Lithography in FeAl alloys by ion irradiation and nanoindentation" (INVITED)
 International Conference on Advanced Materials
 Rio de Janeiro, Brazil Sept. 20-25, 2009
- 93.-**J. Nogués**, I. Golosovsky, G. Salazar-Alvarez, A. López-Ortega, M. Estrader, J. Sort, S. Suriñach, M.D. Baró
 "Exchange bias and proximity effects in 'inverted' antiferromagnetic/ferrimagnetic core/shell nanoparticles"
 (INVITED)
 NANO2009
 San Sebastian, Spain Sept. 28-30, 2009
- 94.-T. Endo, K. Morikawa, H. Zhu, J. Colino, **J. Nogués**, K. Endo
 "Double layer oxide thin films fabrication and enigmatic properties of La-Ba-Mn-O thin films"
 Asia Academic Seminar
 Yokohama, Japan Dec. 8-15, 2009
- 95.-A. López-Ortega, M. Estarder, G. Salazar-Alvarez, J. Sort, S. Suriñach, M.D. Baró, **J. Nogués**
 "Exchange bias in inverted, antiferromagnetic (AFM)/Ferrimagnetic (FiM), core/shell nanoparticles" (INVITED)
 Conference on Interacting Nanostructures
 San Diego, USA April 19-23, 2010
- 96.-**J. Nogués**, G. Salazar-Álvarez, J.J. Kavich, M. Tanase, A. Mugarza, S. Stepanow, A. Potenza, H. Marchetto, S.S.
 Dhesi, V. Baltz, A. Weber, L.J. Heyderman, A.K. Petford-Long, O. Heinonen, M.D. Baró, B. Dieny, K.S.
 Buchanan, A. Hoffmann, P. Gambardella, J. Sort
 "Controlling magnetic vortices in circular dots using exchange bias"
 NordicSpin
 Gimo, Sweden May, 7-9, 2010
- 97.-**J. Nogués**, A. López-Ortega, D. Tobia, E. Winkler, S. Estradé, I. Golosovsky, M. Estrader, J. Sort, G. Salazar-
 Alvarez, J. Arbiol, F. Peiró, S. Suriñach, R.D. Zysler, M.D. Baró
 "Size effects in passivated antiferromagnetic MnO nanoparticles: surface composition, exchange bias, proximity
 effects, enhanced Neel temperature." (INVITED)
 International Conference on Fine Particle Magnetism
 Uppsala, Sweden June 21-24, 2010.
- 98.-J. Sort, L.F. Bonavina, A. Varea, C. Souza, W.J. Botta, C.S. Kiminami, S. Suriñach, M.D. Baró, **J. Nogués**
 "Indentation-induced Nanocrystallization of a Metallic Glass: Towards a novel route for Magnetic Patterning"
 (INVITED)
 International Symposium On Metastable, Amorphous And Nanostructured Materials
 Zurich, Switzerland July 4-9, 2010
- 99.-**J. Nogués**, A. López-Ortega, M. Estrader, D. Tobia, E. Winkler, S. Estradé, I. Golosovsky, J. Sort, G. Salazar-
 Alvarez, J. D. Ardisson, W. A. A. Macedo, K. L. Krycka, J. A. Borchers, J. Arbiol, F. Peiró, S. Suriñach, R.D.
 Zysler, M.D. Baró
 "Exchange bias, size and proximity effects in inverted, antiferromagnetic (AFM)/ferrimagnetic (FiM), core/shell
 nanoparticles" (INVITED)
 Int. Conf. on Magnetism and Magnetic Materials

Atlanta, USA Nov. 14-18, 2010

- 100.- J. Sort, J. Fornell, A. Varea, E. Rossinyol, L. Bonavina, C. Souza, W.J. Botta, C. Kiminami, S. Suriñach, **J. Nogués**, M.D. Baró, “Nanocrystallization of metallic glasses induced by nanoindentation” (INVITED)
TMS Annual Meeting
San Diego, USA Feb. 27-March 3, 2011
- 101.- M. Estrader, A. Lopez-Ortega, G. Salazar-Alvarez, S. Estarde, J. Sort, F. Peiro, S. Suriñach, M.D. Baro, **J. Nogués**
“Bi-magnetic core/Shell nanoparticles” (INVITED)
Villa conference on interactions among nanostructures
Las vegas, USA April 21-25, 2011
- 102.- **J. Nogués**, G. Salazar-Álvarez, J.J. Kavich, M. Tanase, A. Mugarza, S. Stepanow, V. Baltz, A. Weber, L.J. Heyderman, A.K. Petford-Long, O. Heinonen, M.D. Baró, B. Dieny, K.S. Buchanan, A. Hoffmann, P. Gambardella, J. Sort
“Controlling magnetic vortices using exchange bias”
International Symposium on Spin Waves
St. Petersburg, Russia June 5-11, 2011
- 103.- E. Pellicer, M. Estrader, M. Cabo, A. Lopez-Ortega, J. Sort, E. Rossinyol S, Suriñach, M.D. Baró, **J. Nogués**
“Ordered mesoporous magnetic materials” (INVITED)
Collaborative Conference on 3D & Materials Research
Jeju, South Korea June 27 – July 1, 2011
- 104.- J. Sort, J. Fornell, A. Varea, E. Rossinyol, L.F. Bonavina, C. Souza, W.J. Botta, C. Bolfarini, C.S. Kiminami, S. Suriñach, M.D. Baró, **J. Nogués**
“Nanoindentation-induced crystallization of Zr-based and Fe-based metallic glasses” (INVITED)
International Conference of Rapidly Quenched and Metastable Materials
Salvador de Bahia, Brazil Aug. 28 – Sept. 2, 2011
- 105.- J. Sort, A. Varea, L.F. Bonavina, C. Souza, W.J. Botta, C. Bolfarini, C.S. Kiminami, S. Suriñach, M.D. Baró, **J. Nogués**
“Magnetic lithography based on indentation-induced nanocrystallization of metallic glasses” (INVITED)
International Workshop on Amorphous and Nanostructured Magnetic Materials
Iasi, Romania Sept. 5-7, 2011
- 106.- E. Pellicer, A. Lopez-Ortega, M. Cabo, M. Estrader, J. Sort, L. Yedra, S. Estradé, S. Suriñach, Z. Saghi, P.A. Midgley, F. Peiro, M.D. Baró, **J. Nogués**
“Ferrimagnetic $\text{Fe}_x\text{Co}_{(2-x)}\text{O}_4$ nanostructures embedded in highly ordered antiferromagnetic Co_3O_4 mesoporous templates” (INVITED)
European Materials Research Society Meeting (E-MRS)
Warsaw, Poland Sept. 19-23, 2011
- 107.- M. Estrader, A. Lopez-Ortega, D. Tobia, E. Winkler, S. Estarde, I. Golosovsky, J. Sort, G. Salazar-Alvarez, F. Peiro, S. Suriñach, R.D. Zysler, M.D. Baro, **J. Nogués**
“Exchange coupling in antiferromagnetic/ferrimagnetic core/shell nanoparticles” (INVITED) Conference on
Atomically controlled surfaces, interfaces, and nanostructures (ACSIN)
St. Petersburg, Russia Oct. 3-7, 2011

- 108.- **J. Nogués**
“Exchange bias, size, and proximity effects in inverted antiferromagnetic (AFM) /ferromagnetic (FiM), core/shell nanoparticles” (INVITED)
Physics at the Nanoscale
Madrid, Spain Oct. 18-21, 2011
- 109.- R.K. Dumas, Y. Fang. B. Kirby, C. Zha, V. Bonanni, S. Bonetti, **J. Nogués**, J. Akerman
“Graded anisotropy FePtCu films” (INVITED)
Physics at the Nanoscale
Madrid, Spain Oct. 18-21, 2011
- 110.- E. Pellicer, M. Cabo, A. López-Ortega, M. Estrader, E. Rossinyol, J. Sort, S. Suriñach, M.D. Baró, **J. Nogués**
“Functional mesoporous nanocast hybrid materials” (INVITED)
Reunion del Grupo Especializado de Estado Solido
Sevilla, Spain Jan. 25-27, 2012
- 111.- E. Pellicer, A. López-Ortega, M. Cabo, M. Estrader, E. Rossinyol, J. Sort, Ll. Yedra, S. Estradé, I. Golosovsky, Z. Saggi, P.A. Midgley, J. D. Prades, S. Suriñach, F. Peiró, M.D. Baró, **J. Nogués**
“Tunable magnetic properties in ordered mesoporous magnetic materials” (INVITED)
Workshop on Nanomagnetism and Spintronics
San Sebastian, Spain Feb. 22-24, 2012
- 112.- J. Fornell, S. Gonzalez, E. Rossinyol, E. Pellicer, S. Surinach, D. Louzguine, A. Inoue, J. Sort, **J. Nogués**, M.D. Baro
“Evolution of the mechanical magnetic and anticorrosión behaviot of FeCoBSiNb bulk metallic glass during thermal-induced devitrification” (INVITED)
The Minerals Metals and Materials Society (TMS) Meeting
Orlando, USA March 11-15, 2012
- 113.- E. Pellicer A. López-Ortega, M. Cabo, M. Estrader, E. Rossinyol, J. Sort, Ll. Yedra, S. Estradé, I. Golosovsky, Z. Saggi, P.A. Midgley, J.D. Prades, S. Suriñach, F. Peiró, M.D. Baró, **J. Nogués**
“Ordered exchange coupled ferrimagnetic-antiferromagnetic mesoporous magnetic materials” (INVITED)
International Conference on Nanostructured Ceramics and other Nanomaterials
Dehli, India March 13-16, 2012
- 114.- E. Pellicer A. López-Ortega, M. Cabo, M. Estrader, E. Rossinyol, J. Sort, Ll. Yedra, S. Estradé, I. Golosovsky, Z. Saggi, P.A. Midgley, J.D. Prades, S. Suriñach, F. Peiró, M.D. Baró, **J. Nogués**
"Tunable magnetic properties in ordered mesoporous magnetic materials" (INVITED)
Spring Metting of the Materials Research Society (MRS)
San Francisco, USA Aprl 9-13, 2012
- 115.- E. Pellicer A. López-Ortega, M. Cabo, M. Estrader, E. Rossinyol, J. Sort, Ll. Yedra, S. Estradé, I. Golosovsky, Z. Saggi, P.A. Midgley, J.D. Prades, S. Suriñach, F. Peiró, M.D. Baró, **J. Nogués**
"Tunable magnetic properties in ordered mesoporous magnetic materials" (INVITED)
Nordic Workshop on Spintronics and Nanomagnetism
Varberg, Sweden April 22-25, 2012
- 116.- A. Varea, E. Pellicer, S. Pane, K.M. Sivaraman, B.J. Nelson, S. Suriñach, M .D. Baro, **J. Nogués**, J. Sort
“Electrodeposition of Cu, Ni and CuNi nanopillars” (INVITED)

International Symposium On Metastable, Amorphous And Nanostructured Materials
Moskow, Russia June 18-21, 2012

- 117.- E. Pellicer, M. Cabo, S. Suriñach, M.D. Baro, M. Estrader, A. Lopez-Ortega, E. Rossinyol, **J. Nogués**, J. Sort
“Ordered mesoporous metal oxide nanopomposites for multifunctional applications” (INVITED)
International Symposium On Metastable, Amorphous And Nanostructured Materials
Moskow, Russia June 18-21, 2012
- 118.- **J. Nogués**, I.V. Golosovsky, G. Salazar-Alvarez, A. Lopez-Ortega, M.A. Gonzalez, J. Sort, M. Estrader, S.
Suriñach, M.D. baro
“Magnetic proximity effect in antiferromagnetic/ferromagnetic core/shell nanoparticles” (INVITED)
Reunion de la Sociedad Española de Tecnicas Neutronicas
Segovia, Spain June 24-27, 2012
- 119.- E. Pellicer, S. Pane, A. Varea, K.M. Sivaraman, S. Fusco, S. Suriñach, M .D. Baro, **J. Nogués**, B.J. Nelson, J. Sort
“Electrodeposited Cu-Ni materials: thin films, microcolumns and nanopillars” (INVITED)
Workshop on Surface Modification by Electrochemical Methods
Leuven, Belgium June 27-28, 2012
- 120.- E. Pellicer, S. Pane, K.M. Sivaraman, S. Schuerle, M.A. Zeeshan, S. Suriñach, N. Tsyntaru, H. Cesiulis, M .D.
Baro, **J. Nogués**, B.J. Nelson, J. Sort
“Magnetic properties of binary (CuNi, CoW) and multicomponent (CoNiReP) of electrodeposited alloys” (INVITED)
Workshop on Surface Modification by Electrochemical Methods
Leuven, Belgium June 27-28, 2012
- 121.- **J. Nogués**, R. Dumas, Y. Fang, B. Kirby, C. Zha, V. Bonanni, S. Bonetti, J. Akerman
”Continuously graded anisotropy in single [Fe₅₃Pt₄₇]_{100-x}Cu_x films” (INVITED)
Japanese Society of Applied Physics Autumn Meeting
Matsuyama, Japan Sept. 11-14, 2012
- 122.- A. Lopez-Ortega, M. Estrader, G. Salazar-Alvarez, S. Estarde, I.V. Golosovsky R.K. Dumas, D.J. Keavney, M.
Vasilakaki, K.N. Trohidou, J. Sort, F. Peiro, S. Suriñach, M.D. Baro, **J. Nogués**
“Heterostructured bi-magnetic soft-hard core-shell nanoparticles” (INVITED)
Japanese Society of Applied Physics Autumn Meeting
Matsuyama, Japan Sept. 11-14, 2012
- 123.- A. López-Ortega, M. Estrader, G. Salazar-Alvarez, S. Estradé, D. Tobia, E. Winkler, Golosovsky, J. Sort, F. Peiró,
S. Suriñach, R.D. Zysler, M.D. Baró, **J. Nogués**
“Large exchange bias in inverted antiferromagnetic|ferrimagnetic core|shell nanoparticles” (INVITED)
Conference on Research in Condensed Matter Physics
Chennai, India Oct. 1-3, 2012
- 124.- M. Vasilakaki, K. Trohidou, **J. Nogués**
“Interface and surface effects on magnetic oxide systems” (INVITED)
Workshop on the Physics of Complex Oxides
Mallorca, Spain Oct. 2-5, 2012
- 125.- I.V. Golosovsky, A. Lopez-Ortega, M. Estrader, E. Pellicer, M. Gonzalez, J. Sort, S. Suriñach, M.D. Baro, **J.
Nogués**
“Neutron diffraction studies of the bi-magnetic nanosystems ‘core-shell’” (INVITED)
International Conference on Neutrons in Condensed Matter Studies

St. Petersburg, Russia Oct. 15-19, 2012

- 126.- P. Vavassori, N. Maccaferri, V. Bonanni, S. Bonetti, **J. Nogués**, M. Kataja, S. Van Dijken, J. Akerman, A. Dmitriev
“Magnetoplasmonic effects in pure ferromagnetic nanostructures” (INVITED)
Joint Conf. on Magnetism and Magnetic Materials and INTERMAG
Chicago, USA Jan. 14-18, 2013
- 127.- **J. Nogués**
“Strong exchange coupling in conventional and inverse ferromagnetic hard/soft and soft/hard core/shell heterostructured nanoparticles”
American Physical Society Meeting
Baltimore, USA March 18-22, 2013
- 128.- J.F. Lopez-Barbera, P. Vavassori, N. Maccaferri, V. Bonanni, S. Bonetti, Z. Pirzadeh, **J. Nogués**, M. Kataja, S. van Dijken, J. Akerman, A. Dmitriev
“Magnetoplasmonic effects in tailored pure ferromagnetic nanostructures” (INVITED)
Collaborative conference on 3D & Materials Research
Jeju Island, Korea June 24-28, 2013
- 129.- E. Pellicer, S. P. Ane, M. Guerrero, M.A. Zeeshan, J. Bumjin, A. Varela, S. Suriñach, M.D. Baro, **J. Nogués**, B.J. Nelson, J. Sort
“Design and synthesis of multi.alloy/hybrid 1D nanoarchitectures for magnetic and biological applications” (INVITED)
International Symposium On Metastable, Amorphous And Nanostructured Materials
Torino, Italy June 30 – July 5, 2013
- 130.- M. Estrader, A. Lopez-Ortega, S. Estarde, I. Golosovsky, G. Salazar-Alvarez, M. Vasilakaki, K.N. Trohodou, M. Varela, D.C. Stanley, M.J. Pechan, D.J. Keavney, F. Peiro, S. Suriñach, M.D. Baro, **J. Nogués**
“Antiferromagnetic coupling in ferromagnetic hard-soft core/shell nanoparticles” (INVITED)
Int. Conference on Nanoscale Magnetism
Istanbul, Turkey Sept. 2-6, 2013
- 131.- A. Lopez-Ortega, M. Estrader, S. Estarde, I. Golosovsky, G. Salazar-Alvarez, M. Vasilakaki, K.N. Trohodou, M. Varela, D.C. Stanley, M.J. Pechan, D.J. Keavney, F. Peiro, S. Suriñach, M.D. Baro, **J. Nogués**
“Antiferromagnetic coupling in ferromagnetic hard-soft core/shell nanoparticles” (INVITED)
Energy Materials Nanotechnology East Meeting
Beijing, China Sept. 7-10, 2013
- 132.- P. Vavassori, N. Maccaferri, V. Bonanni, S. Bonetti, A. Dmitriev **J. Nogués**, M. Kataja, S. Van Dijken, J. Akerman,
“Magnetoplasmonic effects in pure ferromagnetic nanostructures” (INVITED)
Donostia International Conference on Nanoscale Magnetism and Applications
San Sebastian, Spain Sept. 9-13, 2013
- 133.- J.F. Lopez-Barbera, P. Vavassori, N. Maccaferri, V. Bonanni, S. Bonetti, **J. Nogués**, M. Kataja, S. van Dijken, J. Akerman, A. Dmitriev
“Magnetoplasmonic effects in pure ferromagnetic nanostructures” (INVITED)
Euro Asian Symposium Trends in Magnetism : Nanomagnetism
Vladivostok, Russia Sept. 15-21, 2013

- 134.- N. Roy, A. Lopez-Ortega, M. Estrader, **J. Nogués**, T. Endo, R. Philip
 “Optical nonlinearity in core-shell type oxide protected nanoparticle systems” (INVITED)
 International Union of Materials Research Societies – International Conference of Advanced Materials
 Qingdao, China Sept. 22-28, 2013
- 135.- J. Sort, A. Varea, S. Pane, K. Sivaraman, M. Guerrero, I. Garcia-Urrutia, M.D. Baro, S. Suriñach, **J. Nogués**, E. Garcia-Lecina, B.J. Nelson, E. Pellicer
 “Nanocrystalline and nanocomposite Ni-rich electrodeposited films with enhanced functional properties” (INVITED)
 International Conference on Processing and manufacturing of Advanced Materials (THERMEC)
 Las Vegas, USA Dec. 2-6, 2013
- 136.- E. Pellicer, M.A. Zeeshan, S. Pane, M. Guerrero, S. Suriñach, M.D. Baro, **J. Nogués**, B.J. Nelson, J. Sort
 “Electrodeposited quaternary nanowires with large hardness and tunable magnetic response” (INVITED)
 International Conference on Processing and manufacturing of Advanced Materials (THERMEC)
 Las Vegas, USA Dec. 2-6, 2013
- 137.- **J. Nogués**, M. Estrader, A. López-Ortega, S. Estradé, I. Golosovsky, G. Salazar-Alvarez, M. Vasilakaki, K.N. Trohidou, M. Varela, D.C. Stanley, M. Sinko, M.J. Pechan, D. J. Keavney¹, F. Peiró, S. Suriñach, M.D. Baró
 "Antiferromagnetic coupling in ferrimagnetic hard-soft core/shell nanoparticles" (INVITED)
 Materials Research Society Spring Meeting
 San Francisco, USA April 21-25, 2014
- 138.- **J. Nogués**, M. Estrader, S. Estradé, , F. Peiró, A. López-Ortega, I. Golosovsky, G. Salazar-Alvarez, M. Vasilakaki, K.N. Trohidou, M.A. Roldan, M. Varela, D.C. Stanley, M. Sinko, M.J. Pechan, D. J. Keavney, M. Laver, K. Krycka, J.A: Borchers, S. Suriñach, M.D. Baró
 "Antiferromagnetic coupling in ferrimagnetic hard-soft core/shell nanoparticles" (INVITED)
 Encontro Nacional de Física da Matéria Condensada
 Costa do Sauipe, Brazil May 12-16, 2014
- 139.- A.G. Roca, M. Estrader, A. Lopez-Ortega, G. Salazar-Alvarez, S. Estrade, E. Winkler, I.V. Golosovsky, M. Vasilakaki, K.N. Trohidou, J.S. Ardisson, W. Macedo, F. Peiro, S. Suriñach, R.D. Zysler, M.D. Baro, **J. Nogués**
 “Size dependent magnetism in FeO/Fe₃O₄ core/shell nanoparticles” (INVITED)
 International Union of Materials Research Societies – International Conference on Electronic materials (IUMRS-ICEM)
 Taipei, Taiwan June 10-14, 2014
- 140.- M. Estrader, S. Estradé, , F. Peiró, A. López-Ortega, I. Golosovsky, G. Salazar-Alvarez, M. Vasilakaki, K.N. Trohidou, M.A. Roldan, M. Varela, D.C. Stanley, M. Sinko, M.J. Pechan, D. J. Keavney, M. Laver, K. Krycka, J.A: Borchers, S. Suriñach, M.D. Baró, **J. Nogués**
 "Antiferromagnetic coupling in ferrimagnetic hard-soft core/shell nanoparticles" (INVITED)
 Collaborative Conference on 3D & Materials Research
 Incheon, Korea June 23-27, 2014
- 141.- J. Sort, E. Menendez, M. Guerrero, J. Fornell, E. Rossinyol, M. Roldan, O. Castell, S. Suriñach, M.D. Baro, A. Vantomme, K. Temst, J. Nogués, E. Pellicer
 “Semiconductor 3D ordered mesoporous architectures prepared by nanocasting: (i) oxide diluted magnetic semiconductors and (ii) photoluminescent antidots. Prospects and new challenges.”
 Collaborative Conference on 3D & Materials Research
 Incheon, Korea June 23-27, 2014
- 142.- M. Estrader, S. Estradé, , F. Peiró, A. López-Ortega, I. Golosovsky, G. Salazar-Alvarez, M. Vasilakaki, K.N. Trohidou, M.A. Roldan, M. Varela, D.C. Stanley, M. Sinko, M.J. Pechan, D. J. Keavney, M. Laver, K.L. Krycka, J.A. Borchers, S. Suriñach, M.D. Baró, **J. Nogués**
 "Antiferromagnetic coupling in ferrimagnetic hard-soft core/shell nanoparticles" (INVITED)
 International Union of Materials Research Societies – International Conference in Asia (IUMRS_ICA)
 Fukuoka, Japan Aug. 24-30, 2014

- 143.- M. Estrader, S. Estradé, F. Peiró, A. López-Ortega, I. Golosovsky, G. Salazar-Alvarez, M. Vasilakaki, K.N. Trohidou, M.A. Roldan, M. Varela, D.C. Stanley, M. Sinko, M.J. Pechan, D. J. Keavney, M. Laver, K.L. Krycka, J.A. Borchers, S. Suriñach, M.D. Baró, **J. Nogués**
"Antiferromagnetic coupling in ferrimagnetic hard-soft core/shell nanoparticles" (INVITED)
European Materials Research Society
Warsaw, Poland Sept. 15-19, 2014
- 144.- J.F. Lopez-Barbera, E. Menendez, H. Modarresi, M. Haidar, B.J. Kirby, J. Akerman, J.A. Borchers, A. Vantomme, K. Temst, **J. Nogués**
"Tuning the magnetic properties of Co thin films by oxygen ion implantation" (INVITED)
Autum Meeting of the Japanese Society of Applied Physics
Sapporo, Japan Sept. 17-20, 2014
- 145.- A.G. Roca, M. Estrader, A. Lopez-Ortega, G. Salazar-Alvarez, S. Estrade, E. Winkler, I.V. Golosovsky, M. Vasilakaki, K.N. Trohidou, J.S. Ardisson, W. Macedo, F. Peiro, S. Suriñach, R.D. Zysler, M.D. Baro, **J. Nogués**
"Size dependent magnetism in FeO/Fe₃O₄ core/shell nanoparticles" (INVITED)
Energy Materials Nanotechnology Open Access Week
Chengdu, China Sept. 22-25, 2014
- 146.- **J. Nogués**
"Antiferromagnetic coupling in ferrimagnetic hard-soft core/shell nanoparticles" (INVITED)
American physical Society Meeting
San Antonio, USA March 2-6, 2015
- 147.- M. Estrader, A. Lopez-Ortega, A.G. Roca, G. Salazar-Alvarez, S. Estrade, E. Winkler, I.V. Golosovsky, M. Vasilakaki, K.N. Trohidou, J.S. Ardisson, W. Macedo, F. Peiro, S. Suriñach, R.D. Zysler, M.D. Baro, **J. Nogués**
"Size dependent magnetism in FeO/Fe₃O₄ core/shell nanoparticles and its possible biomedical applications" (INVITED)
International Workshop on Complex magnetic Nanostructures
Aegina, Greece June 2-5, 2015
- 148.- G. Margaritis, K. Trohidou, **J. Nogués**
"Exchange bias effects in arrays of Co/CoO nanoparticles" (INVITED)
International Workshop on Complex magnetic Nanostructures
Aegina, Greece June 2-5, 2015
- 149.- M. Estrader, S. Estradé, F. Peiró, A. López-Ortega, I. Golosovsky, G. Salazar-Alvarez, M. Vasilakaki, K.N. Trohidou, M.A. Roldan, M. Varela, D.C. Stanley, M. Sinko, M.J. Pechan, D. J. Keavney, S. Suriñach, M.D. Baró, **J. Nogués**
"Evidence of an interfacial antiferromagnetic coupling in ferrimagnetic hard-soft core/shell nanoparticles" (INVITED)
International Conference on Frontiers on Materials Processing, Applications Research and Technology
Hyderabad, India June 12-15, 2015
- 150.- D. Esque-de los Ojos, M.A. Zeeshan, P. Castro-Hartmann, M. Guerrero, **J. Nogués**, S. Suriñach, M.D. Baro, B.J. Nelson, S. Pane, E. Pellicer, J. Sort
"Nanomechanical behaviour of amorphous and crystalline CoNiReP electrodeposited nanowires: a comparison with thick films with analogous compositions" (INVITED)
International Conference on Frontiers on Materials Processing, Applications Research and Technology
Hyderabad, India June 12-15, 2015
- 151.- M.A. Zeeshan, D. Esque-de los Ojos, P. Castro-Hartmann, M. Guerrero, **J. Nogués**, S. Suriñach, M.D. Baro, B.J. Nelson, S. Pane, E. Pellicer, J. Sort
"Comparative study of the nanomechanical properties of amorphous and crystalline nanowires with respect to thick films with analogous microstructure" (INVITED)
Collaborative Conference on 3D & Materials Research
Busan, Korea June 15-19, 2015
- 152.- P. Güell, M. Seco, A. Aranda-Ramos, C. Nogués, **J. Nogués**, B. Sepulveda

“Colloidal lithography nanopatterning for bioanalytical applications” (INVITED)
Workshop on Analytical Nanoscience and Nanotechnology
Salamanca, Spain July 6-8, 2015

- 153.- J. Zhang, S. Agramunt, S. Pane, S. Estarde, F. Peiro, N. Del valle, M.D. Baro, C. Navau, A. Sanchez, J. Nogués, E. Pellicer, J. Sort
“Template assisted electrodeposition and magnetic properties of multi-segmented hard ferromagnetic (FM)/spacer/soft FM PtCo/Cu/Ni nanowires” (INVITED)
Collaborative Conference on 3D & Materials Research
Busan, Korea June 15-19, 2015
- 154.- M. Estrader, A. López-Ortega, A. Juhin, S. Estradé, I. Golosovsky, M. Sikora, C. Carvallo, G. Salazar-Alvarez, M. Vasilakaki, K.N. Trohidou, M. Varela, D.C. Stanley, M.J. Pechan, P. Santcavit, P. Galtzel, D. J. Keavney, F. Peiro, S. Suriñach, M.D. Baró, **J. Nogués**
“Antiferromagnetic coupling in ferrimagnetic hard-soft core/shell nanoparticles” (INVITED)
International Conference on Magnetism
Barcelona, Spain July 5-10, 2015
- 155.- M.A. Roldan, J. Salaranca, R. Ishikawa, R. Mishra, A. López-Ortega, M. Estrader, G. Salazar-Alvarez, **J. Nogués**, S.J. Pennycook, M. Varela
“STEEM-EELS study of structural phase transitions in core/Shell bi-magnetic oxide nanoparticles” (INVITED)
International Conference on Composites/NanoEngineering
Chengdu, China July, 12-18, 2015
- 156.- J. Sort, S. APne, D. Esque-de los Ojos, A.M. Zeesham, M. Guerrero, S. Suriñach, **J. Nogués**, M.D. Baro, B.J. Nelson, E. Pellicer
“Structure, mechanical and magnetic performance of amorphous and chrystalline electrodeposited CoNiReP thin films and nanowires” (INVITED)
International Symposium on Metastable, Amorphous and Nanostructured Materials
Paris, France July 13-17, 2015
- 157.- I. Golvano-Escobal, N. Domingo, J.C. Gonzalez-Rosillo, T. Puig, S. Pane, X. Illa, S. Suriñach, M.D. Baro, J.F. Lopez-Barbera, **J. Nogués**, E. Pellicer, J. Sort
“Self-organized spatio-temporañ electric, mecchanical and magnetic micropatterning in electrodeposited cobalt-indium films and microidsks” (INVITED)
International Symposium on Metastable, Amorphous and Nanostructured Materials
Paris, France July 13-17, 2015
- 158.- J. Sort, E. Menendez, H. Zhang, D. Nieto, S. Suriñach, M.D. Baro, E. Pellicer, **J. Nogués**
”Magnetic patterning startegies based on order-dosorder transitions nad nanocrystalization of metllic glasses” (INVITED)
Energy Materials Nanotechnology Spain Meeting
San Sebastian, Spain Sept. 1-4, 2015
- 159.- A. Juhin, N. Daffe, A. Lopez-Ortega, M. Sikora, P. Saincavit, N. Mas, V. Dupuis, S. Neveu, F. Choueikani, M. Estrader, C. Carvallo, S. Estardé, F. Peiro, M.D. Baro, **J. Nogués**, M. Rovezzi, P. Glatzel
“Hard x-ray RIXS-MCD, a magnetic spectroscopy for in-situ characterization of nanoparticles and their internal structure” (INVITED)
Energy Materials Nanotechnology Spain Meeting
San Sebastian, Spain Sept. 1-4, 2015
- 160.- S. Estrade, P. Torruella, R. Arenal, L. Yedra, A. Eljarrat, L. Lopez-Conesa, R. Arenal, F. de la Peña, Z. Saghi, M. Estrader, A. Lopez-Ortega, G. Salazar-Alvarez, **J. Nogués**, P.A. Midgley, F. Peiro
“Multidimensional EELS: from spectrum image to spectrum volumen and beyond” (INVITED)
Energy Materials Nanotechnology Spain Meeting
San Sebastian, Spain Sept. 1-4, 2015
- 161.- J.A. De Toro, D.P. Marques, P. Muñiz, V. Skumryev, J. Sort, D. Givord, J. Nogués

- “High temperature stabilization of cobalt nanoparticles by an antiferromagnetic proximity effect” (INVITED)
 Energy Materials Nanotechnology Spain Meeting
 San Sebastian, Spain Sept. 1-4, 2015
- 162.- M. Estrader, A. López-Ortega, A. Juhin, S. Estradé, I. Golosovsky, M. Sikora, C. Carvallo, G. Salazar-Alvarez, M. Vasilakaki, K.N. Trohidou, M. Varela, D.C. Stanley, M.J. Pechan, P. Santcavit, P. Galtzel, D. J. Keavney, F. Peiro, S. Suriñach, M.D. Baró, **J. Nogués**
 “Antiferromagnetic coupling in ferrimagnetic hard-soft core/shell nanoparticles and possible biomedical applications” (INVITED)
 Energy Materials Nanotechnology Spain Meeting
 San Sebastian, Spain Sept. 1-4, 2015
- 163.- M.A. Zeeshan, D. Esque-de los Ojos, P. Castro-Hartmann, M. Guerrero, **J. Nogués**, S. Suriñach, M.D. Baro, B.J. Nelson, S. Pane, E. Pellicer, J. Sort
 “Dissimilar trends in the nanomechanical behavior of amorphous and crystalline metallic nanowires” (HIGHLIGHT)
 European Congress on Advanced materials and Processes
 Warsaw, Poland Sept. 20-25, 2015
- 164.- J.A. De Toro, D.P. Marques, P. Muñoz, V. Skunryev, J. Sort, D. Givord, **J. Nogués**
 “High temperature magnetic stabilization of cobalt nanoparticles by an antiferromagnetic proximity effect” (INVITED)
 Int. Workshop on Amorphous and Nanostructured Magnetic Materials
 Iasi, Romania Sept. 21-24, 2015
- 165.- S. Estarde, P. Torruella, L. Yedra, A. Eljarrat, L. Lopez-Conesa, R. Arenal, F. de la Peña, Z. Saghi, M. Estarder, A. Lopez-Ortega, G. Salazar-Alvarez, **J. Nogués**, P.A. Midgley, F. Peiro
 “Accessing the chemical and optoelectronic properties of nanostructures in 3D: The EELS spectral volume” (INVITED)
 Energy Materials Nanotechnology Open Week
 Chengdu, China Sept. 22-25, 2015
- 166.- E. Fantechi, A.G. Roca, C. Innocenti, M. Albino, C. Sangregorio, N. Bastus, V. Punes, **J. Nogués**
 “Advanced multifunctional magnetic and magnetoplasmonic nanoparticles for enhanced hyperthermia” (INVITED)
 Energy Materials Nanotechnology Open Week
 Chengdu, China Sept. 22-25, 2015
- 167.- P. Güell, F. Pi, **J. Nogués**, B. Sepulveda
 “Plasmonic and magneto-plasmonic nanostructures for biomedical applications” (INVITED)
 Energy Materials Nanotechnology Open Week
 Chengdu, China Sept. 22-25, 2015
- 168.- A.G. Roca, E. Fantechi, N.G. Bastus, V. Punes, **J. Nogués**
 “Magneto-plasmonic nanostructures for theranostic applications” (INVITED)
 Energy Materials Nanotechnology Guangzhou Meeting
 Guangzhou, China Dec. 3-6, 2015
- 169.- E. Fantechi, A.G. Roca, P., Güell, N. Bastús, V. Punes, B. Sepúlveda, **J. Nogués**
 “Multifunctional magnetic and magneto-plasmonic nanoparticles for enhanced hyperthermia applications” (INVITED)
 International Conference on Nanoscience, Nanotechnology and Nanobiotechnology
 Brasilia, Brazil Dec. 14-18, 2015
- 170.- **J. Nogués**, D. Gilbert, L. Ye, A. Varea, S. Agramunt-Puig, N. del valle, C. Navau, J.F. Lopez-Barbera, K. Buchanan, A. Hoffmann, A. Sanchez, J. Sort, K. Liu
 “New reversal mode in exchange coupled antiferromagnetic/ferromagnetic disks:distorted viscous vortex” (INVITED)
 International Conference on Magnetism and Magnetic Materials and - International Magnetism and Magnetic Materials Conference – MMM-INTERMAG
 San Diego, USA Jan. 11-15, 2016
- 171.- A.G. Roca, E. Fantechi, N.G. Bastus, V. Punes, **J. Nogués**

- “Magneto-plasmonic nanostructures for theranostic applications” (INVITED)
 Collaborative Conference on 3D & Materials Research
 Incheon, Korea June 20-24, 2016
- 172.- P. Torruella, R. Arenal, Z. Saghi, L. Yedra, A. Eljarrat, J. Rebled, F. de la Peña, M. Estarder, G. Salazar-Alvarez, A. López-Ortega, J. Nogués, P.A. Midgley, S. Estarde, F. Peiro
 “EELS-Tomography: Enabling 4D chemical and oxidation state characterization of nanostructured materials” (INVITED)
 Nantech Poland International Conference
 Poznan, Poland 22-25 June, 2016
- 173.- I. Golosovsky, M. Estarder, A. Lopez-Ortega, A.G. Roca, **J. Nogués**
 “Incommensurate magnetic order in CoO nanoparticles revealed by neutron diffraction” (INVITED)
 International Workshop on Magnetism and Superconductivity and the Nanoscale
 Coma-Ruga, Spain July 4-7, 2016
- 174.- **J. Nogués**, E. Fantechi, A.G. Roca, Z. Li, P. Güell, N.G. Bastus, V. Puentes, B. Sepulveda
 “Magneto-plasmonic nanoparticles for enhanced hyperthermia applications” (INVITED)
 Brazilian Materials Research Society Meeting
 Campinas, Brazil Sept. 25-29, 2016
- 175.- J. Sort, J. Zhang, S. Agramunt-Puig, N. del valle, C. Navau, S. Estarde, F. Peiro, S. Pane, A. Sanchez, **J. Nogués**, E. Pellicer
 “Multi-segmented magnetic nanowires as advanced nanorobotic platforms for biomedical applications” (INVITED)
 Conference on Magnetism and Magnetic Materials
 New Orleans, USA Oct. 31 –Nov. 4, 2016
- 176.- E. Fantechi, A.G. Roca, P. Güell, Z. Li, N. Bastús, V. Puentes, B. Sepulveda, **J. Nogués**
 “Multifunctional magnetic and magneto-plasmonic nanoparticles for enhanced hyperthermia applications” (INVITED)
 International Conference on Technological Advanced Materials
 Delhi, India Nov. 7-11, 2016
177. J. Sort, J. Zhang, S. Agramunt, N. Del Valle, C. Navau, S. Estrade, F. Peiro, S. Pane, A. Sanchez, E. Pellicer, **J. Nogués**
 “Tri-segmented magnetic nanowires with antiparallel alignment: suitable platforms for biomedical applications with minimized agglomeration” (INVITED)
 International Conference on Magnetism (INTERMAG)
 Dublin, Ireland April 24-28, 2017
- 178.- A. Lopez-Ortega, A.G. Roca, P. Torruella, S. Estarde, F. Peiro, V. Puentes, **J. Nogués**
 “Formation of Mn₃O₄/Fe₃O₄ hollow oxide nanoparticles by galvanic replacement” (INVITED)
 International Conference on Small Science and Energy Materials Nanotechnology Nanoparticles Meeting
 San Sebastian, Spain May 9-13, 2017
- 179.- Z. Li, A. Aranda-Ramos, P. Guell-Grau, J.L. Tajada, L. Pou-Macayo, S. Lope-Piedrafita, F. Pi, M.D. Baro, J. Sort, C. Nogués, J. Nogués, B. Sepulveda
 “Combined photo-thermal therapy and multimodal imaging with magneto-plasmonic nanodomains” (INVITED)
 International Conference on Small Science and Energy Materials Nanotechnology Nanoparticles Meeting
 San Sebastian, Spain May 9-13, 2017
- 180.- **J. Nogués**
 “Controlled formation of Mn₃O₄/Fe₃O₄ hollow oxide nanoparticles, with possible biomedical applications, by galvanic replacement” (INVITED)
 Symposium on Magnetic Nanoparticles and SuperSpinGlasses
 Uppsala, Sweden June 1, 2017
- 181.- Z. Li, A. Aranda-Ramos, P. Guell-Grau, J.L. Tajada, L. Pou-Macayo, S. Lope-Piedrafita, F. Pi, M.D. Baro, J. Sort, C. Nogués, **J. Nogués**, B. Sepulveda
 “Multifunctional magneto-plasmonic nanodomains for combines magnetic manipulation multi-modal imaging and

- photo-thermal therapies” (INVITED)
Collaborative Conference on Materials Research
Jeju Island, Korea June 26-30, 2017
- 182.- K. Temst, E. Menedez, J. Demeter, R. Steitz, A.R. Wildes, A.S. Mohd, A. Koutsoumpanis, E. Babcock, S. Mattauch, **J. Nogués**, A. Vantomme
“Exchange bias in thin Co-CoO films: inner secrets revealed by polarized neutron reflectometry” (INVITED)
Moscow International Symposium on Magnetism
Moscow, Russia July 1-5, 2017
- 183.- E. Menedez, S. Suriñach, M.D. Baro, M.O. Liedke, J. Fassbender, **J. Nogués**, J. Sort
“Structure, composition and magnetism in FeAl alloys” (INVITED)
Frontiers in Materials Processing Applications and Technology
Bordeaux, France July 9-12, 2017
- 184.- I. Golvano-Escobal, J.C. Gonzalez-Rosillo, N. Domingo, X. Illa, J.F. Lopez-Barbera, J. Fornell, P. Solsona, L.-Aballe, M. Foerster, S. Suriñach, M.D. Baro, T. Puig, S. Pane, J. Nogués, E. Pellicer, J. Sort
“Spatio-temporal patterns formation in Co-In system: films vs nanodisks” (INVITED)
Frontiers in Materials Processing Applications and Technology
Bordeaux, France July 9-12, 2017
- 185.- A. Lopez-Ortega, A.G. Roca, P. Torruella, M. Petrecca, S. Estarde, F. Peiro, V. Puentes, **J. Nogués**
“Controlled formation of Mn₃O₄/Fe₃O₄ hollow oxide nanoparticles, with possible biomedical applications, by galvanic replacement” (INVITED)
International Conference on Composites/Nano Engineering
Rome, Italy July 16-22, 2017
- 186.- J. Muro-Cruces, A.G. Roca, A. Lopez-Ortega, **J. Nogués**
“Synthesis of Fe₃O₄ nanorods using different approaches and their potential biomedical applications” (INVITED)
International Conference on Composites/Nano Engineering
Rome, Italy July 16-22, 2017
- 187.- J.A. De Toro, M. Vasilakaki, S.S. Lee, M.S. Andersson, P.S. Normile, N. Yaacoub, P. Murray, E.H. Sanchez, P. Muñiz, D. Peddis, R. Mathieu, K. Liu, J. Geshev, K.N. Trohidou, **J. Nogués**
“Remanence plots are sensitive to surface spin disorder in oxide nanoparticles” (INVITED)
International Conference on Composites/Nano Engineering
Rome, Italy July 16-22, 2017
- 188.- E. Fantechi, A.G. Roca, B. Sepulveda, P. Torruella, S. Estarde, F. Peiro, E. Coy, S. Jurga, F. Pineider, N. Bastús, V. Puentes, **J. Nogués**
“Seeded growth synthesis of Au-Fe₃O₄ heterostructured nanocrystals for potential biomedical applications” (INVITED)
International Conference on Composites/Nano Engineering
Rome, Italy July 16-22, 2017
- 189.- A. Kovacs, P. Diehle, T. Maeda, J. Caron, J. Muro-Cruces, A.G. Roca, J. Arbiol, **J. Nogués**, K. Kaneko, R. Dunin-Borowski
“Correlative transmission electron microscopy of highly perfect Fe₃O₄ nanocubes” (INVITED)
Microscopy and Microanalysis Conference
St. Louis, USA Aug. 6-10, 2017
- 190.- A. Ruiz-Caridad, M.G. Walls, A. Gomez-Roca, **J. Nogués**, P. Torruella, L. Lopez-Conesa, S. Estarde, F. Peiro
“Revealing magnetic core-shell nanoparticles structure at the nanoscale” (INVITED)
International Union of Materials Research Societies – International conference of Advanced Materials
Kyoto, Japan Aug. 27-Sept. 1, 2017
- 191.- E. Fantechi, A.G. Roca, C. Innocenti, B. Sepulveda, P. Torruella, S. Estarde, F. Peiro, E. Coy, S. Jurga, F. Pineider, C. Sangregorio, N. Bastús, V. Puentes, **J. Nogués**

- “Multifunctional iron-oxide based magnetic and magneto-plasmonic nanoparticles for biomedical applications”
(INVITED)
International Union of Materials Research Societies – International conference of Advanced Materials
Kyoto, Japan Aug. 27-Sept. 1, 2017
- 192.- Z. Li, A. Aranda-Ramos, P. Guell-Grau, J.L. Tajada, L. Pou-Macayo, S. Lope-Piedrafita, F. Pi, M.D. Baro, J. Sort, C. Nogués, **J. Nogués**, B. Sepulveda
“Multifunctional magneto-plasmonic nanodomains for combined magnetic manipulation multi-modal imaging and photo-thermal therapies” (INVITED)
International Union of Materials Research Societies – International conference of Advanced Materials
Kyoto, Japan Aug. 27-Sept. 1, 2017
- 193.- A.G. Roca, E. Fantechi, A. López-Ortega, N. G. Bastus, S. Estrade, P. Torruella, F. Peiro, V. Puntès, **J. Nogués**
“Understanding the synthesis of Au-Fe₃O₄ heterostructures” (INVITED)
Autumn Japanese Society of Applied Physics
Fukuoka, Japan Sept. 5-8, 2017
- 194.- P. Torruella, L. Lopez-Conesa, A. Ruiz-Caridad, M.G. Walls, A.G. Roca, A. Lopez-Ortega, **J. Nogués**, S. Estarde, F. Peiro
“Unveiling the secrets of Mn_xO_y/Fe_xO_y core/Shell nanoparticles through electron microscopy techniques”
(INVITED)
Conference on Analytical Science and Technology
Cheongju, Korea Oct. 23-24, 2017
- 195.- J.A. De Toro, M. Vasilakaki, S.S. Lee, M.S. Andersson, P.S. Normile, N. Yaacoub, P. Murray, E.H. Sanchez, P. Muñoz, D. Peddis, R. Mathieu, K. Liu, J. Geshev, K.N. Trohidou, **J. Nogués**
“Remanence plots as a probe of spin disorder in magnetic nanoparticles” (INVITED)
Symposium on Magnetic Coupling in Nanostructures Materials
Rome, Italy Oct. 23-24, 2017
- 196.- M. Estrader, A. López-Ortega, A. Juhin, S. Estradé, I. Golosovsky, M. Sikora, C. Carvallo, G. Salazar-Alvarez, M. Vasilakaki, K.N. Trohidou, M. Varela, D.C. Stanley, M.J. Pechan, P. Saintcavit, P. Galtzel, D. J. Keavney, F. Peiro, S. Suriñach, M.D. Baró, **J. Nogués**
“Antiferromagnetic coupling in ferrimagnetic hard-soft core/shell nanoparticles and possible biomedical applications”
(INVITED)
Symposium on Magnetic Coupling in Nanostructures Materials
Rome, Italy Oct. 23-24, 2017
- 197.- E. Pellicer, J. Zhang, **J. Nogués**, J. Sort
“Electrodeposition of trisegmented nanowires with antiparallel alignment and zero net magnetization” (INVITED)
IEEE Conference on Advances in Magnetism
La Thuile, Italy Feb. 4-7, 2018
- 198.- J. Sort, A. Quintana, C. Navarro-Senent, J. Fornell, J. Zhang, E. Isarain-Chavez, E. Menendez, R. Cuadrado, R. Robles, M.D. Baro, M. Guerrero, S. Pane, B. Nelson, C. Muller, P. Ordejon, **J. Nogués**, E. Pellicer
“Voltage induced coercivity reduction in nanoporous alloy films and patterned structures: a boost towards energy-efficient magnetic actuation” (INVITED)
IEEE Conference on Advances in Magnetism
La Thuile, Italy Feb. 4-7, 2018
- 199.- J. Sort, A. Quintana, C. Navarro-Senent, J. Fornell, J. Zhang, E. Isarain-Chavez, E. Menendez, R. Cuadrado, R. Robles, M.D. Baro, M. Guerrero, S. Pane, B. Nelson, C. Muller, P. Ordejon, **J. Nogués**, E. Pellicer
“Voltage-induced coercivity reduction in nanoporous alloy films” (INVITED)
International Workshop on Magneto-Electric Actuation, Magneto-ionics and Related Phenomena in High Surface area Materials
Gavà, Spain May 27-30, 2018
- 200.- A.G. Roca, E. Fantechi, Z. Li, A. Lopez-Ortega, A. Aranda-Ramos, C. Nogués, B. Sepulveda, J. Nogués
“Magnetoplasmonic heterostructures for theranostic applications”

Heyrosky Discussion
Trest, Czech Republic May 27-31, 2018

- 201.- **J. Nogués**, Z. Li, A. Aranda-Ramos, A. Lopez-Ortega, P. Guell-Grau, J.L. Tajada, L. Pou-Macayo, F. Pi, S. Lope Piedrafita, M.D. Baro, J. Sort, P. Vavasori, C. Nogués, B. Sepulveda
“Simultaneous local nanoheating/thermometry based on plasmonic magnetochromic nanodomains” (INVITED)
Collaborative Conference on Materials Research
Incheon, South Korea June 25-29, 2018
- 202.- Z. Li, A. Lopez-Ortega, A. Aranda-Ramos, J.L. Tajada, J. Sort, C. Nogués, P. Vavasori, **J. Nogués**, B. Sepulveda
“Simultaneous local heating/thermometry based on plasmonic magnetochromic nanodomains” (INVITED)
International Conference on Small Science
Rome, Italy July 2-6, 2018
- 203.- Z. Li, A. Lopez-Ortega, A. Aranda-Ramos, J.L. Tajada, J. Sort, C. Nogués, P. Vavasori, **J. Nogués**, B. Sepulveda
“Simultaneous local heating/thermometry based on plasmonic magnetochromic nanodomains” (INVITED)
International Symposium on Metastable, Amorphous and Nanostructured Materials
Rome, Italy July 2-6, 2018
- 204.- E. Pellicer, **J. Nogués**, J. Sort, J. Zhang, M.D. Baró, S. Suriñach
“Tri-segmented magnetic nanowires with antiparallel alignment: suitable platforms for biomedical applications with minimized agglomeration” (INVITED)
International Symposium on Metastable, Amorphous and Nanostructured Materials
Rome, Italy July 2-6, 2018
- 205.- J. Sort, A. Quintana, C. Navarropo-Sennet, E. Dislaki, S. Robbenolt, J. Fornell, E. Isarain-Chavez, E. Menendez, M.D. Baró, **J. Nogués**, E. Pellicer
“Large magnoelectric effects in nanoporous electrodeposited films and patterned structures” (INVITED)
International Conference on Processing & Manufacturing of Advanced Materials (THERMEC)
Paris, France July 9-13, 2018
- 206.- E. Fantechi, A. Gomez Roca, C. Innocenti, B. Sepulveda, F. Pineider¹, C. Sangregorio, N. Bastus, V. Puntès, **J. Nogués**
“Multifunctional Magnetic Plasmonic Nanoparticles for Innovative Biomedical and Sensing Applications” (INVITED)
International Union of Materials Research Societies – International Conference on Electronic Materials 2018 (IUMRS-ICEM)
Daejeon, Korea Aug. 19-24, 2018
- 207.- J. Muro-Cruces, A.G. Roca, A. Lopez-Ortega, M. Hemadi, I.V. Golosovsky, **J. Nogués**
“Improving the Properties of Iron Oxide in the Ranostic Applications by the Use of Elongated Nanoparticles” (INVITED)
International Union of Materials Research Societies – International Conference on Electronic Materials 2018 (IUMRS-ICEM)
Daejeon, Korea Aug. 19-24, 2018
- 208.- M.O. Leidke, M. Butterling, A. Quintana, E. Menendez, J. Ehrler, R. Bali, E. Hirschmann, V. Sireus, **J. Nogués**, J. Sort, A. Wagner
“Vacancy-mediated magnetic phase transitions” (INVITED)
International Conference on Positron Annihilation
Orlando, USA Aug. 19-24, 2018
- 209.- Z. Li, A. Aranda-Ramos, A. Lopez-Ortega, P. Guell-Grau, J. Sort, P. Vavasori, C. Nogués, **J. Nogués**, B. Sepulveda
“Control of photothermal therapies with magnetic fields” (INVITED)
Energy Materials Nanotechnology Barcelona Meeting
Barcelona, Spain Sept. 10-14, 2018
- 210.- S. Perumbilavil, A. Lopez-Ortega, G.K. Tiwari, **J. Nogués**, T. Endo, R. Philip

“Ultrafast optical limiting in ferrite core/shell nanostructures” (INVITED)
European Materials Research Society Fall Meeting (E-MRS)
Warsaw, Poland Sept. 17-20, 2018

- 211.- J. Sort, A. Quintana, C. Navarro-Senent, E. Isarain-Chavez, J. Menendez, J. Fornell, M.D. Baro, **J. Nogués**, E. Pellicer
“Enhanced magnetoelectric effects in nanoporous alloy films and nanoporous metal/oxide lithographed microdisks” (INVITED)
European Materials Research Society Fall Meeting (E-MRS)
Warsaw, Poland Sept. 17-20, 2018
- 212.- A. Juhnin, N. Daffe, M. Sikora, J. Zecevic, K. Trohidou, **J. Nogués**, N. Boualdi, V. Gavrilov, S. Neveu, F. Choueikani, V. Dupuis, P. Ohresser, M. Arrio, M. Rovenzzi, P. Saincavit
“Element-sensitive measurement of magnetic properties in bimagnetic nanoparticles and binary ferrofluids by x-ray magnetic spectroscopies” (INVITED)
Joint Magnetism and Magnetic Materials – INTERMAG Conference
Washington DC, USA Jan. 14-18, 2019
- 213.- J.A. De Toro, P.S. Normile, E.H. Sanchez, S.S. Lee, M. Vasilakaki, M.S. Andersson, K.N. Trohidou, R. Mathieu, **J. Nogués**
“Surface-driven Magnetism of Fe-oxide nanocrystals” (INVITED)
American Chemical Society National Meeting and Exhibition
Orlando, USA March 31-April 4, 2019
- 214.- F. Peiro, P. Torruella, A. Riuz-Caridad, M. Wells, A.G. Roca, A. Lopez-Ortega, J. Blanco-Portales, L. Lopez-Conesa, **J. Nogués**, S. Estrade
“Determination of the inversion parameter in spinel oxides core-shell nanoparticles at atomic resolution by STEM-EELS techniques” (INVITED)
Global Conference on Magnetism and Magnetic Materials
Rome, Italy July 25-26, 2019
- 215.- M. Vasilakaki, E. Sanchez, N. Daffe, A. Juhnin, J.A. De Toro, **J. Nogués**, K. Trohidou
“Magnetic behavior of binary assemblies of nanoparticles: a multiscale modelling study” (INVITED)
Joint European Magnetic Symposia (JEMS)
Uppsala, Sweden Aug. 26-30, 2019
- 216.- M.O. Liedke, M. Butterling, A. Quintana, E. Menedez, E. Hirschmann, A.G. Attallah, V. Sireus, **J. Nogués**, J. Sort, A. Wagner
“Electrical field controlled ON-OFF ferromagnetism in metal oxide films”
International Workshop on Slow Positron Beam Technologies and Applications
Prague, Czech Republic Sept. 2-6, 2019
- 217.- C. Navarro, A. Quintana Puebla, S. Robbenolt, A. Nicolenco, D. Baro, V. Sireus, E. Pellicer, **J. Nogués**, E. Menendez, J. Sort
“Voltage controlled on-off ferromagnetism in dense and nanoporous transition metal oxides”
Conference on Magnetism and Magnetic Materials (MMM)
Las Vegas, USA Nov. 4-8, 2019
- 218.- M. Vasilakaki, E. Sanchez, N. Daffe, A. Juhnin, D. Peddis, J. De Toro, **J. Nogués**, K. Trohidou
“Magnetic behavior of binary assemblies of nanoparticles” (INVITED)
International Conference on Nanoscience Nanotechnology and Nanobiotechnology (3NANO)
Brasilia, Brazil Dec. 8-12, 2019
- 219.- Z. Li, A.G. Roca, A. Aranda-Ramos, A. Lopez-Ortega, P. Guell-Grau, J.L. Tajada, L. Pou-Macayo, F. Pi, S. Lopez-Piedrafita, M.D. Baro, J. Sort, P. Vavasori, C. Nogués, **J. Nogués**, B. Speulveda
“Magnetoplasmonic nanodomains as a novel structure for Biomedical Applications” (Invited)
Joint Conference of the Condensed Matter Divisions of the European Physical Society
Madrid, Spain Aug. 31 – Sept. 4, 2020 (on-line conference)

- 220.- J. Muro-Cruces, A.G. Roca, A. Lopez-Ortega, E. Fantechi, D. del-Pozo-Bueno, S. Estarde, F. Peiro, F. Pineider, C. Sangregorio, B. Sepulveda, **J. Nogués**
 “Fe₃O₄ nanocubes as versatile theranostic agents” (Invited)
 International Conference on Modern Problems on Solid State and Statistical Physics.
 Kiev, Ukraine Sept. 14-15, 2020 (On-line Conference)
- 221.- **J. Nogués**, Z. Li, A.G. Roca, A. Aranda-Ramos, A. Lopez-Ortega, P. Guell-Grau, J.L. Tajada, L. Pou-Macayo, F. Pi, S. Lope Piedrafita, A.G. Roca, M.D. Baro, J. Sort, P. Vavasori, C. Nogués, B. Sepulveda
 “Magnetoplasmonic nanodomains as a novel structure for biomedical applications” (Invited)
 European Advanced Materials Congress
 Hybrid Stockholm, Sweden/On-line Aug. 23-25, 2021
- 222.- **J. Nogués**, J. Muro-Cruces, A.G. Roca, A. Lopez-Ortega, E. Fantechi, D. del-Pozo-Bueno, S. Estarde, F. Peiro, F. Pineider, C. Sangregorio, B. Sepulveda
 “Fe₃O₄ nanocubes as versatile theranostic agents” (Invited)
 3NANO Live Webinar
 On-line Dec. 12, 2021
- 223.- J.A. De Toro, P. Normile, R. Lopez Martin, B. Snatos Burgos, **J. Nogués**, C. Binns
 “Gas-phase synthesis of Nanoparticles: a Unique Technique for Nanomagnetism” (Invited)
 General Conference of the Condensed Matter Division of the European Physical Society
 Manchester, UK Aug. 21-26, 2022
- 224.- **J. Nogués**, A. Lafuente, Z. Li, A. Flucksman, A. Aranda-Ramos, A. Lopez-Ortega, A.G. Roca, P. Guell-Grau, J.L. Tajada, L. Pou-Macayo, F. Pi, S. Lope Piedrafita, M.D. Baro, J. Sort, P. Vavassori, C. Nogués, O. Benny, B. Sepulveda
 “Magnetoplasmonic nanodomains as a novel structure for biomedical Applications” (Invited)
 Nano Science/Technology/Biotechnology (3NANO)
 Rome, Italy Sept. 20-23, 2022
- 225.- **J. Nogués**
 “Anisometric Fe₃O₄ nanoparticles as versatile theranostic agents” (Invited)
 New Advances in Magnetic Nanoparticles: Biomedical and Environmental Applications
 Pamplona, Spain April 27, 2023
- 226.- M. Estrader, A.G. Roca, A. Lopez-Ortega, R.U. Ichikawa, I. Peral, X. Turrillas, D. del-Pozo-Bueno, M. Varela, F. Peiro, S. Estarde, **J. Nogués**
 “Unveiling new insights into bi-magnetic antiferromagnetic/ferrimagnetic core/shell nanoparticles: a multicharacterization approach” (Invited)
 INTERMAG
 Sendai, Japan May 15-19, 2023
- 227.- **J. Nogués**, A. Lafuente, Z. Li, A. Flucksman, A. Aranda-Ramos, A. Lopez-Ortega, A.G. Roca, P. Guell-Grau, J.L. Tajada, L. Pou-Macayo, F. Pi, S. Lope Piedrafita, M.D. Baro, J. Sort, P. Vavassori, C. Nogués, O. Benny, B. Sepulveda
 “Magnetoplasmonic nanodomains as a novel structure for biomedical Applications” (Invited)
 Joint Rapidly Quenched and Metastable Materials and International Symposium on Metastable Amorphous and Nanostructured Materials
 Warsaw, Poland Aug. 20-25, 2023
- 228.- J. Sort, Z. Tam, N. Lopez, Z. Ma, I. Spasojevic. M. Peda, J. de Rojas, A. Quintana, E. Pellicer, **J. Nogués**, E. Menendez
 “Voltage-control of magnetism: fundamental mechanisms and prospective applications in low-power memory and artificial synapses” (Invited)
 Trends in Magnetism
 Rome, Italy Sept. 4-8, 2023
- 229.- **J. Nogués**, A. Lafuente, A. Flucksman, A.G. Roca, C. Nogués, O. Benny, B. Sepulveda
 “Magnetoplasmonic nanocapsules as wirelessly controlled nanotherapies” (Invited)

International Conference on Matetioal Science and Technology
Valencia, Spain Oct. 26-27, 2023

- 230.- A.G. Roca, A. Lafuente, J.F. Lopez-Barbera, J. Muro-Cruces, A. Lopez-Ortega, E. Fantechi, M. Hemadi, B. Sepulveda, **J. Nogués**
“Fe₃O₄ nanoparticles as multifunctional theranoistic agents” (Invited)
NanoBio&Med
Barcelona, Spain Nov. 21-23, 2023
- 231.- M. Estrader, A.G. Roca, A. Lopez-Ortega, R.U. Ichikawa, I. Peral, X. Turrilas, D. del-Pozo-Bueno, M. Varela, S. Estarde, F. Peiro, **J. Nogués**
“Advanced magneto-structural characterization of magnetic-based oxide nanocomposites” (Invited)
International Conference & Exposition on Advanced Ceramics and Composites
Daytona Beach Jan. 28 – Feb. 2, 2024
- 232.- **J. Nogués**, J. Muro-Cruces, E. Fantechi, F. Özel, A. Lafuente, J.F. Lopez-Barbera M. Hemadi, A. Lopez-Ortega, D. Del-Pozo-Bueno, S. Estrader, F. Piero, F. Pineider, C. Sangregorio, B. Sepulveda, A.G. Roca
“Anisometric Fe₃O₄ nanoparticles ad versatile theranostic agents” (Invited)
International Conference on Nanomaterials, Nanofabrication and Nanocharacterization
Mugla, Turkey April 18-24, 2024
- 233.- **J. Nogués**, J. Muro-Cruces, E. Fantechi, F. Özel, A. Lafuente, J.F. Lopez-Barbera, A. Lopez-Ortega, B. Sepulveda, A.G. Roca
“Synthesis of anisometric Fe₃O₄ nanoparticles” (Invited)
New Horizons on Nanostructured Magnetic Materials
Iglesias, Italy June 27-29, 2024
- 234.- N. Lopez, C.J. Jensen, Z. Chen, Z. Tan, O. Leidke, M. Buterling, A. Wagner, J. Herrero-Martin, E. Menendez, **J. Nogués**, K. Liu, J. Sort
“Solid-State magneto-ionic control of magnetization and exchange bias in CoMnN single-layer films” (Invited)
International Conference on Magnetism
Bologna, Italy June 30-July 5, 2024
- 235.- J. Sort, N. Lopez, A. Arredondo, Z. Tan, Z. Ma, I. Spasojevic, P. Monalisha, J. de Rojas, C.J. Jensen, Z. Chen, A. Quintana, E. Pellicer, K. Liu, **J. Nogués**, E. Menendez
“Nitrogen magneto-ionics: recent progress and prospective applications” (Invited)
International Conference on Magnetism
Bologna, Italy June 30-July 5, 2024
- 236.- A. Lafuente, A. Flucksman, A.G. Roca, O. Benny, **J. Nogués**, M. Alvarez, B. Sepulveda
“Highly damped plasmonic and ferromagnetic metamaterials for wireless opto-magnetic actuation and detection” (Invited)
International Conference on Metamaterials, Photonic Crystals and Plasmonics
Toyama, Japan July 16-19, 2024
- 237.- **J. Nogués**, A. Lafuente, A. Flucksman, A.G. Roca, C. Nogués, O. Benny, B Sepulveda
“Magnetoplasmonic Nanocapsules as Wirelessly Controlled Nanotherapies” (Invited)
International Conference on Emerging Advanced Nanomaterials
Newcastle, Australia Nov. 4-8, 2024
- 238.- **J. Nogués**, A. Lafuente, A. Flucksman, A.G. Roca, C. Nogués, O. Benny, B Sepulveda
“Magnetoplasmonic Nanocapsules as Wirelessly Controlled Nanotherapies” (Invited)
International Conference on Magnetism and Magnetic Materials and - International Magnetism and Magnetic Materials Conference – MMM-INTERMAG
New Orleans, USA Jan. 13-17, 2025

PATENTS

"Procedimiento para aumentar la coercitividad de un material ferromagnético" ("Procedure to enhance the coercivity of a ferromagnetic material")

J. Nogués, J. Sort, X. Amils, J.S. Muñoz, S. Suriñach, M.D. Baró
Spanish Patent 2164528
Licenced 16/10/2003

"A hybrid hyperthermia device, and methods using the same"

J. Nogués, B. Sepúlveda, A.G. Roca, J.L. Tajada, E. Fantechi
WO 2018/002043 A2
Priority date 27/06/2016

"Method for tuning the magnetic coercivity of a nanoporous film, a device and used thereof"

J. Sort, E. Pellicer, E.I. Chávez, A. Quintana, J. Nogués
WO 2018/206591 A1
Priority date 10/05/2017

"Material that absorbs electromagnetic radiation of wavelengths between 300 nm and 18 microns, and applications"

B. Sepulveda, M. Alvarez, P. Güell, J. Nogués, Z. Li, R. Villa
WO 2021/116522 A1
Priority date 11/12/2019

"A stretchable opto-mechanical material composed by a metallic and or dielectric nanostructure array embedded into a wrinkled elastomer"

M. Alvarez, R. Villa, P. Güell, B. Sepulveda, J. Nogués
WO2022/084309 A1
Priority date 20/10/2020

"Method for manufacturing an emitter for electrospray generators"

B. Sepulveda, J. Nogués, P. Güell, D. Perez, M. Wijnen, J. Cruz, S. Correyero
WO2023/275579 A1
Priority date 28/06/2021

**** In exploitation by IENAI Space**

"Fluid disinfection method, fluid disinfection device and metal filter for disinfecting pathogens of a fluid flow"

J. Nogués, B. Sepulveda, M.E. Esplandiu, J.L. Tajada
WO2024/003107 A1
Priority date 29/06/2022

"A method for magnetic conversion from paramagnetic to ferromagnetic of microporous metal materials, ferromagnetic microporous metal material obtainable thereby and their uses"

A. Fons, J. Nogués, M.J. Esplandiu, A. Lafuente, B. Sepulveda
PCT/EP2024/070425