

List of Publications

Participation in Seminars, Courses and Scientific Divuligation Events:

- *NESPA Training Course on Advanced Materials preparation and characterization techniques.* DATES: 31 March- 4 April 2008. PLACE: Dresden (Germany).
- *Imaging Techniques Course.* DATES: 25 May 2009. PLACE: Barcelona (Spain).
- *Characterization Course of Particles, Nanoparticles, Surfaces, Rheology and Liquid Dispersions.* DATES: 17-18 June 2009. PLACE: Barcelona (Spain).
- *First Workshop on Printed Electronics.* DATES: 2 March 2010. PLACE: Barcelona (Spain).

Participation in conferences:

- *Annual meeting Nanoselect: Materiales avanzados y Nanotecnologías para dispositivos y sistemas eléctricos, electrónicos y magnetoelectrónicos innovadores.* DATES: 9 – 10 July 2009. PLACE: Barcelona (Spain). CONTRIBUTION: Poster. TITLE: Inkjet Printing of Superconducting Layers. AUTHORS: M. Vilardell, S. Ricart, X. Granados, T. Puig, X. Obradors
- *Ninth European Conference on Applied Superconductivity.* DATES: 13 – 17 September 2009. PLACE: Dresden (Germany). CONTRIBUTION: Poster. TITLE: Inkjet Printing of Superconducting Layers. AUTHORS: M. Vilardell, S. Ricart, X. Granados, T. Puig, X. Obradors, J. Bennewitz, M. Bäcker.
- *International Workshop on Coated Conductors for Applications.* DATES: 22 – 24 November 2009. PLACE: Barcelona (Spain). CONTRIBUTION: Poster. TITLE: Inkjet Printing of Superconducting Layers. AUTHORS: M. Vilardell, S. Ricart, X. Granados, T. Puig, X. Obradors, J. Bennewitz, M. Bäcker.
- *Sisena Trobada de Joves Investigadors dels Països Catalans.* DATES: 31 January- 2 February 2010. PLACE: Valencia (Spain). CONTRIBUTION: Oral communication. TITLE: Deposició de capes superconductores per impressió per injecció de tinta. AUTHORS: M. Vilardell, S. Ricart, X. Granados, T. Puig, X. Obradors.

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- *Sexta Reunión Grupo Especializado de Física de Estado Sólido*. DATES: 3 February - 5 February 2010. PLACE: Zaragoza (Spain). CONTRIBUTION: Poster. TITLE: Functional oxide epitaxial layers obtained by inkjet. AUTHORS: M. Vilardell, R. Cobas, C. F. Sánchez Valdés, S. Ricart, X. Granados, T. Puig and X. Obradors.
 - *Annual meeting Nanoselect: Materiales avanzados y Nanotecnologías para dispositivos y sistemas eléctricos, electrónicos y magnetoelectrónicos innovadores*. DATES: 14 – 16 July 2010. CONTRIBUTION: Oral communication. TITLE: Novel inkjet printing methodologies for $\text{YBa}_2\text{Cu}_2\text{O}_{7-x}$ film growth and patterning. AUTHORS: M. Vilardell, X. Sintas, S. Ricart, X. Granados, T. Puig, X. Obradors.
 - *26th International Conference on Digital Printing Technologies (NIP26)/Digital Fabrication*. DATES: 19 – 23 September 2010. PLACE: Texas (United States). CONTRIBUTION: Oral communication. TITLE: Inkjet printing for functional ceramic coating. AUTHORS: M. Vilardell, S. Ricart, X. Granados, T. Puig, X. Obradors, S.C. Hopkins, B.A. Glowacki.
 - *Tenth European Conference on Applied Superconductivity*. Dates: 18 – 23 September 2011. PLACE: Den Haag (The Netherlands). CONTRIBUTION: Oral communication. TITLE: Novel inkjet printing methodologies for $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ film growth and patterning. AUTHORS: M. Vilardell, S. Ricart, X. Granados, T. Puig, X. Obradors, M. Bäcker, S.C. Hopkins, B.A. Glowacki, J. Feys, I. Van Driessche.
 - *MRS Spring Meeting*. DATES: 9 – 13 April 2012. PLACE: San Francisco (United States). CONTRIBUTION: Oral communication. TITLE: Novel inkjet printing methodologies for solution based functional oxide coatings. AUTHORS: M. Vilardell, S. Ricart, X. Granados, T. Puig, X. Obradors, M. Bäcker, S.C. Hopkins, B.A. Glowacki, J. Feys, I. Van Driessche.
 - *29th International Conference on Digital Printing Technologies (NIP29)/Digital Fabrication*. DATES: 29 September – 3 October 2013. PLACE: Seattle (United States). CONTRIBUTION: Focus oral. TITLE: Inkjet printing for functional ceramic coating. AUTHORS: M. Vilardell, S. Ricart, X. Granados, T. Puig, X. Obradors, S.C. Hopkins, B.A. Glowacki.

Participation in investigation projects:

- *“Efficient Environmental-Friendly Electro-Ceramics Coating Technology and Synthesis: EFECTS”*, 2009-2011, COORDINATOR: Prof. Dr. Isabel Van Driessche.
- *“Inkjet printing of superconducting layers: INES”*, 2008-2010, COORDINATOR: Dr. Michael Bäcker.

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- “*European Development of Superconducting Tapes*”: EUROTAPES, 2012-2017, COORDINATOR: Prof. Xavier Obradors.

Publications:

- X. Granados, S. Ricart, R. Cobas, M. Vilardell, M. Arjona, T. Puig, X. Obradors, S.C. Hopkins and B.A. Glowacki. Ink jet printing for functional ceramic coatings. Proceedings of the 26th International Conference on Digital Printing Technologies (NIP26)/Digital Fabrication, (2010).
- M. Vilardell, X. Granados, S. Ricart, R. Cobas, M. Arjona, T. Puig, X. Obradors, S.C. Hopkins, B.A. Glowacki, Ink jet printing for functional ceramic coatings, *Journal of Imaging Science and Technology*, **55**: 040304, (2011).
- I. Van Driessche, J. Feys, S. C. Hopkins, P. Lommens, X. Granados, B. A. Glowacki, S. Ricart, B. Holzappel, M. Vilardell, A. Kirchner, M. Bäcker. Chemical solution deposition using ink-jet printing for YBCO coated conductors. *Superconductor Science and Technology*, **25**: 065017, (2012).
- M. Vilardell, X. Granados S. Ricart, I. Van Driessche, A. Palau, T. Puig, X. Obradors. *Flexible manufacturing of functional ceramic coatings by inkjet printing. Thin Solid Films*, **548**: 489, (2013).
- M. Vilardell, X. Granados, S. Ricart, A. Calleja, A. Palau, T. Puig and X. Obradors. Patterning of functional ceramic oxides on metallic substrates by inkjet printing. Proceedings of the 29th International Conference on Digital Printing Technologies (NIP29)/Digital Fabrication, (2013).
- M. Vilardell, X. Granados, S. Ricart, A. Calleja, A. Palau, T. Puig and X. Obradors. Inkjet printing of $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ magnetoresistive devices by inkjet printing, (in preparation).

Awards:

- ESAS prize for the oral communication: Novel ink jet printing methodologies for $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ film growth and patterning (Materials Section), September 2011 at the 10th European Conference on Applied Superconductivity.
- Itek Award 2012 for the paper “Ink-jet printing for functional ceramic coatings”, *Journal of Imaging Science and Technology*.