ICMAB | INSTITUT DE CIÈNCIA DE MATERIALS DE BARCELONA

EXCELENCIA SEVERO OCHOA

ARTICLES IN JOURNALS

2016

CSIC

CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

ARTICLES IN JOURNALS 2016

ICMAB's researchers published 229 articles in international scientific journals in 2016. In this report you can find them ordered by research lines and ranked according their Impact Factor. Sixteen of them belong to two sublines and are repeated in each one.

Articles in Journals 2016

RL1 - ENERGY STORAGE AND CONVERSION

1. Ponrouch, A.; Frontera, C.; Barde, F.; Palacin, M. R.
   Towards a calcium-based rechargeable battery
   (2016) *Nature Materials*, 15 (2), pp. 169+

2. Vezie, Michelle S.; Few, Sheridan; Meager, Iain; Pieridou, Galatia; Dorling, Bernhard; Ashraf, Raja Shahid; Goni, Alejandro R.; Bronstein, Hugo; McCulloch, Iain; Hayes, Sophia C.; Campoy-Quiles, Mariano; Nelson, Jenny
   Exploring the origin of high optical absorption in conjugated polymers
   (2016) *Nature Materials*, 15 (7), pp. 746+

3. Palacin, M. R.; de Guibert, A.
   Why do batteries fail?
   (2016) *Science*, 351 (6273), 1253292

4. Nunez, R.; Romero, I.; Teixidor, F.; Vinas, C.
   Icosahedral boron clusters: a perfect tool for the enhancement of polymer features
   (2016) *Chemical Society Reviews*, 45 (19), pp. 5147-5173
   Also included in RL5

5. Doerling, Bernhard; Ryan, Jason D.; Craddock, John D.; Sorrentino, Andrea; El Basaty, Ahmed; Gomez, Andres; Garriga, Miquel; Pereiro, Eva; Anthony, John E.; Weisenberger, Matthew C.; Goni, Alejandro R.; Muller, Christian; Campoy-Quiles, Mariano
   Photoinduced p- to n-type Switching in Thermoelectric Polymer-Carbon Nanotube Composites
   (2016) *Advanced Materials*, 28 (14), pp. 2782-2789

6. Lopez-Varo, Pilar; Bertoluzzi, Luca; Bisquert, Juan; Alexe, Marin; Coll, Mariona; Huang, Jinsong; Antonio Jimenez-Tejada, Juan; Kirchartz, Thomas; Nechache, Riad; Rosei, Federico; Yuan, Yongbo
   Physical aspects of ferroelectric semiconductors for photovoltaic solar energy conversion
   (2016) *Physics Reports-Review Section of Physics Letters*, 653, pp. 140

7. Brotons-Gisbert, Mauro; Andres-Peuares, Daniel; Suh, Joonki; Hidalgo, Francisco; Abargues, Rafael; Rodriguez-Canto, Pedro J.; Segura, Alfredo; Cros, Ana; Tobias, Gerard; Canadell, Enric; Ordejon, Pablo; Wu, Junqiao; Martinez-Pastor, Juan P.; Sanchez-Royo, Juan F.
Nanotexturing To Enhance Photoluminescent Response of Atomically Thin Indium Selenide with Highly Tunable Band Gap
(2016) *Nano Letters*, 16 (5), pp. 3221-3229

8. Amato, Michele; Kaewmaraya, Thanayut; Zobelli, Alberto; Palummo, Maurizia; Rurali, Riccardo
Crystal Phase Effects in Si Nanowire Polytypes and Their Homojunctions
(2016) *Nano Letters*, 16 (9), pp. 5694-5700

9. Angel Silva-Guillen, Jose; Ordejon, Pablo; Guinea, Francisco; Canadell, Enric
Electronic structure of 2*H*-$NbSe_2$ single-layers in the CDW state
(2016) *2D Materials*, 3 (3), 35028

10. Arroyo-de Dompablo, M. Elena; Krich, Christopher; Nava-Avendano, Jessica; Biskup, Neven; Rosa Palacin, M.; Barde, Fanny
A Joint Computational and Experimental Evaluation of $CaMn_2O_4$ Polymorphs as Cathode Materials for Ca Ion Batteries
(2016) *Chemistry of Materials*, 28 (19), pp. 6886-6893

11. Balmes, O.; Prevot, G.; Torrelles, X.; Lundgren, E.; Ferrer, S.
Diatomic Steps in Pt(997) Surfaces Are Better Catalysts than Monatomic Steps for the CO Oxidation Reaction near Atmospheric Pressure
(2016) *ACS Catalysis*, 6 (2), pp. 1285-1291

12. Wessendorf, Cordula D.; Perez-Rodriguez, Ana; Hanisch, Jonas; Arndt, Andreas P.; Ata, Ibrahim; Schulz, Gisela L.; Quintilla, Aina; Baeuerle, Peter; Lemmer, Uli; Wochner, Peter; Ahlswede, Erik; Barrena, Esther
Understanding the effect of solvent vapor annealing on solution-processed A-D-A oligothiophene bulk-heterojunction solar cells: the role of alkyl side chains
(2016) *Journal of Materials Chemistry A*, 4 (7), pp. 2571-2580

13. Gonzalez, Edgar; Merkoci, Florind; Arenal, Raul; Arbiol, Jordi; Esteve, Joan; Bastus, Neus G.; Puntes, Victor
Enhanced reactivity of high-index surface platinum hollow nanocrystals
(2016) *Journal of Materials Chemistry A*, 4 (1), pp. 200-208

14. Leguy, Aurelien M. A.; Azarhoosh, Pooya; Alonso, M. Isabel; Campoy-Quiles, Mariano; Weber, Oliver J.; Yao, Jizhong; Bryant, Daniel; Weller, Mark T.; Nelson, Jenny; Walsh, Aron; van Schilfgaarde, Mark; Barnes, Piers R. F.
Experimental and theoretical optical properties of methylammonium lead halide perovskites
(2016) *Nanoscale*, 8 (12), pp. 6317-6327

15. Amato, Michele; Rurali, Riccardo
Surface physics of semiconducting nanowires
(2016) *Progress in Surface Science*, 91 (1), pp. 128

16. Diaz-Gonzalez, Maria; Gutierrez-Capitan, Manuel; Niu, Pengfei; Baldi, Antoni; Jimenez-Jorquera, Cecilia; Fernandez-Sanchez, Cesar
Electrochemical devices for the detection of priority pollutants listed in the EU water framework directive
(2016) *Trac-Trends in Analytical Chemistry*, 77 (), pp. 186-202

17. Balcells, Lluis; Martinez-Boubeta, Carlos; Cisneros-Fernandez, Jose; Simeonidis, Konstantinos; Bozzo, Bernat; Oro-Sole, Judith; Bagues, Nuria; Arbiol, Jordi; Mestres, Narcis; Martinez, Benjamin
One-Step Route to Iron Oxide Hollow Nanocuboids by Cluster Condensation: Implementation in Water Remediation Technology
(2016) *ACS Applied Materials & Interfaces*, 8 (42), pp. 28599-28606
Also included in RL3

18. Niu, Pengfei; Asturias-Arribas, Laura; Gich, Marti; Fernandez-Sanchez, Cesar; Roig, Anna
Electrochemically Active Thin Carbon Films with Enhanced Adhesion to Silicon Substrates
(2016) *ACS Applied Materials & Interfaces*, 8 (45), pp. 31092-31099

19. Ertem, Elif; Murillo-Cremaes, Nerea; Carney, Randy Patrick; Laromaine, Anna; Janecek, Emma-Rose; Roig, Anna; Stellacci, Francesco
A silica-based magnetic platform decorated with mixed ligand gold nanoparticles: a recyclable catalyst for esterification reactions
(2016) *Chemical Communications*, 52 (32), pp. 5573-5576

20. Monti, Damien; Ponrouch, Alexandre; Rosa Palacin, M.; Johansson, Patrik
Towards safer sodium-ion batteries via organic solvent/ionic liquid based hybrid electrolytes
(2016) *Journal of Power Sources*, 324 (), pp. 712-721

21. Sandoval, Stefania; Kumar, Nitesh; Oro-Sole, Judith; Sundaresan, A.; Rao, C. N. R.; Fuertes, Amparo; Tobias, Gerard
Tuning the nature of nitrogen atoms in N-containing reduced graphene oxide
(2016) *Carbon*, 96 (), pp. 594-602

22. Buss, Felix; Schmidt-Hansberg, Benjamin; Sanyal, Monamie; Munuera, Carmen; Scharfer, Philip; Schabel, Wilhelm; Barrena, Esther
Gaining Further Insight into the Solvent Additive-Driven Crystallization of Bulk-Heterojunction Solar Cells by in Situ X-ray Scattering and Optical Reflectometry
(2016) *Macromolecules*, 49 (13), pp. 4867-4874
Also included in RL4

23. Esro, M.; Georgakopoulos, S.; Lu, H.; Vourlias, G.; Krier, A.; Milne, W. I.; Gillin, W. P.; Adamopoulos, G.
Solution processed SnO_2:Sb transparent conductive oxide as an alternative to indium tin oxide for applications in organic light emitting diodes
(2016) *Journal of Materials Chemistry C*, 4 (16), pp. 3563-3570

24. Ponrouch, A.; Tchitchekova, D.; Frontera, C.; Barde, F.; Arroyo-de Dompablo, M. E.; Palacin, M. R.
Assessing Si-based anodes for Ca-ion batteries: Electrochemical decalciation of $CaSi_2$
(2016) *Electrochemistry Communications*, 66, pp. 7578

25. Leguy, Aurelien M. A.; Goni, Alejandro R.; Frost, Jarvist M.; Skelton, Jonathan; Brivio, Federico; Rodriguez-Martinez, Xabier; Weber, Oliver J.; Pallipurath, Anuradha; Isabel Alonso, M.; Campoy-Quiles, Mariano; Weller, Mark T.; Nelson, Jenny; Walsh, Aron; Barnes, Piers R. F.
Dynamic disorder, phonon lifetimes, and the assignment of modes to the vibrational spectra of methylammonium lead halide perovskites
(2016) *Physical Chemistry Chemical Physics*, 18 (39), pp. 27051-27066

26. Arroyo-de Dompablo, M. E.; Krich, C.; Nava-Avendano, J.; Palacin, M. R.; Barde, F.
In quest of cathode materials for Ca ion batteries: the $CaMO_3$ perovskites (M = Mo, Cr, Mn, Fe, Co, and Ni)
(2016) *Physical Chemistry Chemical Physics*, 18 (29), pp. 19966-19972

27. Rurali, Riccardo; Colombo, Luciano; Cartoixa, Xavier; Wilhelmsen, Oivind; Trinh, Thuat T.; Bedeaux, Dick; Kjelstrup, Signe
Heat transport through a solid-solid junction: the interface as an autonomous thermodynamic system
(2016) *Physical Chemistry Chemical Physics*, 18 (20), pp. 13741-13745

28. Royo, Miquel; Rurali, Riccardo
Tuning thermal transport in Si nanowires by isotope engineering
(2016) *Physical Chemistry Chemical Physics*, 18 (37), pp. 26262-26267

29. Matencio, Sonia; Barrena, Esther; Ocal, Carmen
Coming across a novel copper oxide 2D framework during the oxidation of Cu(111)
(2016) *Physical Chemistry Chemical Physics*, 18 (48), pp. 33303-33309

30. Liu, Xunshan; Chen, Songjie; Hauser, Jurg; Laukhin, Vladimir; Decurtins, Silvio; Aschauer, Ulrich; Liu, Shi-Xia
Low-Dimensional Tin(II) Iodide Perovskite Structures Templated by an Aromatic Heterocyclic Cation
(2016) *Crystal Growth & Design*, 16 (9), pp. 5230-5237

31. Mahmoudi, Ghodrat; Bauza, Antonio; Amini, Mojtaba; Molins, Elies; Mague, Joel T.; Frontera, Antonio
On the importance of tetrel bonding interactions in lead(II) complexes with (iso)nicotinohydrazide based ligands and several anions
(2016) *Dalton Transactions*, 45 (26), pp. 10708-10716

32. Magraso, Anna; Frontera, Carlos
Comparison of the local and the average crystal structure of proton conducting lanthanum tungstate and the influence of molybdenum substitution
(2016) *Dalton Transactions*, 45 (9), pp. 3791-3797

33. Robert, C.; Pereira Da Silva, K.; Nestoklon, M. O.; Alonso, M. I.; Turban, P.; Jancu, J. -M.; Even, J.; Carrere, H.; Balocchi, A.; Koenraad, P. M.; Marie, X.; Durand, O.; Goni, A. R.; Cornet, C.
Electronic wave functions and optical transitions in (In,Ga)As/GaP quantum dots
(2016) *Physical Review B*, 94 (7), 75445

34. Barbarino, Giuliana; Fugallo, Giorgia; Melis, Claudio; Mauri, Francesco; Colombo, Luciano
Predicting the thermal conductivity in a graphene nanoflake from its response to a thermal impulse
(2016) *Physical Review B*, 94 (24), 245437

35. Buscemi, Fabrizio; Royo, Miquel; Goldoni, Guido; Bertoni, Andrea
Tailoring the core electron density in modulation-doped core-multi-shell nanowires
(2016) *Nanotechnology*, 27 (19), 195201

36. Martin, Laura; Molins, Elies; Vallribera, Adelina
Tuning and enhancement of the Mizoroki-Heck reaction using polarized Pd nanocomposite carbon aerogels
(2016) *New Journal of Chemistry*, 40 (12), pp. 10208-10212

37. Perez del Pino, A.; Gyorgy, E.; Cotet, C.; Baia, L.; Logofatu, C.
Laser-induced chemical transformation of free-standing graphene oxide membranes in liquid and gas ammonia environments
(2016) *RSC Advances*, 6 (55), pp. 50034-50042

38. Domenech, B.; Romero, V.; Vazquez, M. I.; Avila, M.; Benavente, J.; Munoz, M.; Macanas, J.
Chemical and electrochemical characterization of Nafion containing silver nanoparticles in a stripe-like distribution
(2016) *RSC Advances*, 6 (12), pp. 9923-9931

39. Domenech, Berta; Mata, Ignasi; Molins, Elies
Tuning the structure and the mechanical properties of epoxy-silica sol-gel hybrid materials
(2016) *RSC Advances*, 6 (13), pp. 10736-10742

40. Gonzalez Cuxart, M.; Reyes-Herrera, J.; Sics, I.; Goni, A. R.; Moreno Fernandez, H.; Carlino, V.; Pellegrin, E.
Remote plasma cleaning of optical surfaces: Cleaning rates of different carbon allotropes as a function of RF powers and distances
(2016) *Applied Surface Science*, 362, pp. 448-458

41. Cartoixa, Xavier; Dettori, Riccardo; Melis, Claudio; Colombo, Luciano; Rurali, Riccardo
Thermal transport in porous Si nanowires from approach-to-equilibrium molecular dynamics calculations
(2016) *Applied Physics Letters*, 109 (1) , 13107

42. Hahn, Konstanze R.; Cecchi, Stefano; Colombo, Luciano
Effect of asymmetric concentration profile on thermal conductivity in Ge/SiGe superlattices
(2016) *Applied Physics Letters*, 108 (20), 203102

43. Dugas, R.; Ponrouch, A.; Gachot, G.; David, R.; Palacin, M. R.; Tarascon, J. M.
Na Reactivity toward Carbonate-Based Electrolytes: The Effect of FEC as Additive
(2016) *Journal of the Electrochemical Society*, 163 (10), pp. A2333-A2339

44. Perez del Pino, A.; Datcu, A.; Gyoergy, E.
Direct multipulse laser processing of titanium oxide-graphene oxide nanocomposite thin films
(2016) *Ceramics International*, 42 (6), pp. 7278-7283

45. Gyorgy, E.; Perez del Pino, A.; Datcu, A.; Duta, L.; Logofatu, C.; Iordache, I.; Duta, A.
Titanium oxide - reduced graphene oxide - silver composite layers synthesized by laser technique: Wetting and electrical properties
(2016) *Ceramics International*, 42 (14), pp. 16191-16197

46. Grande, Lorenzo; Ochel, Anders; Monaco, Simone; Mastragostino, Marina; Tonti, Dino; Palomino, Pablo; Paillard, Elie; Passerini, Stefano
Li/air Flow Battery Employing Ionic Liquid Electrolytes
(2016) *Energy Technology*, 4 (1), pp. 85-89

47. Angels Subirana-Manzanares, Maria; Sanchez-Sala, Marta; Pons, Josefina; Domingo, Concepcion; Ayllon, Jose A.
Lead(II) fluoride particles synthesized by a straightforward mechanochemical route
(2016) *Materials Letters*, 163, pp. 76-80

48. Vohra, Varun; Doerling, Bernhard; Higashimine, Koichi; Murata, Hideyuki
Investigating the effect of solvent boiling temperature on the active layer morphology of diffusive bilayer solar cells
(2016) *Applied Physics Express*, 9 (1), 12301

49. Dettori, Riccardo; Melis, Claudio; Rurali, Riccardo; Colombo, Luciano
Thermal rectification in silicon by a graded distribution of defects
(2016) *Journal of Applied Physics*, 119 (21), 215102

50. Lopez-Suarez, Miquel; Neri, Igor; Rurali, Riccardo
Band gap engineering of MoS2 upon compression
(2016) *Journal of Applied Physics*, 119 (16), 165105

51. Yaccuzzi, E.; Khachadorian, S.; Suarez, S.; Reinoso, M.; Goni, A. R.; Strittmatter, A.; Hoffmann, A.; Giudici, P.
Investigation of proton damage in III-V semiconductors by optical spectroscopy
(2016) *Journal of Applied Physics*, 119 (23), 235702

52. Soldevila-Sanmartin, Joan; Ayllon, Jose A.; Calvet, Teresa; Font-Bardia, Merce; Domingo, Concepcion; Pons, Josefina
Synthesis, crystal structure and magnetic properties of a Cu(II) paddle-wheel complex with mixed bridges
(2016) *Inorganic Chemistry Communications*, 71 (), pp. 9093,
Also included in RL5

53. Muresan, L. E.; Popovici, E. J.; Perhaita, I.; Indrea, E.; Oro, J.; Casan Pastor, N.
Rare earth activated yttrium aluminate phosphors with modulated luminescence
(2016) *Luminescence*, 31 (4), pp. 929-936

54. Antidormi, A; Graziano, M; Piccinini, G; Boarino, L; Rurali, R
First principles calculations of SO2 sensing with Si nanowires
(2016) *European Physical Journal B*, 89 (12), 275

55. Rosa Palacin, Maria; Simon, Patrice; Tarascon, Jean Marie
Nanomaterials for Electrochemical Energy Storage: the Good and the Bad
(2016) *Acta Chimica Slovenica*, 63 (3), pp. 417-423

56. Dettori, R.; Melis, C.; Cartoixa, X.; Rurali, R.; Colombo, L.
Thermal boundary resistance in semiconductors by non-equilibrium thermodynamics
(2016) *Advances in Physics-X*, 1 (2), pp. 246-261

57. Genc, Aziz; Patarroyo, Javier; Sancho-Parramon, Jordi; Duchamp, Martial; Gonzalez, Edgar; Bastus, Neus G.; Houben, Lothar; Dunin-Borkowski, Rafal; Puntes, Victor F.; Arbiol, Jordi
Hollow metal nanostructures for enhanced plasmonics (Conference Presentation)
(2016) *Colloidal Nanoparticles for Biomedical Applications XI,* 9722-972206

58. Mihi, Agustin
Low cost and large-area photonic architectures for enhanced light management in optoelectronic devices (Conference Presentation)
(2016) *Proceedings of SPIE Photonic Crystal Materials and Devices XII*, 9885, UNSP 98850A

RL2 - SUPERCONDUCTORS FOR POWER APPLICATIONS

59. Queralto, Albert; Perez del Pino, Angel; de la Mata, Maria; Arbiol, Jordi; Tristany, Mar; Obradors, Xavier; Puig, Teresa
Ultrafast Epitaxial Growth Kinetics in Functional Oxide Thin Films Grown by Pulsed Laser Annealing of Chemical Solutions
(2016) *Chemistry of Materials*, 28 (17), pp. 6136-6145
Also included in RL3

60. Gazquez, Jaume; Guzman, Roger; Mishra, Rohan; Bartolome, Elena; Salafranca, Juan; Magen, Cesar; Varela, Maria; Coll, Mariona; Palau, Anna; Valvidares, S Manuel; Gargiani, Pierluigi; Pellegrin, Eric; Herrero-Martin, Javier; Pennycook, Stephen J; Pantelides, Sokrates T; Puig, Teresa; Obradors, Xavier
Emerging Diluted Ferromagnetism in High-Tc Superconductors Driven by Point Defect Clusters.
(2016) *Advanced Science*, 3 (6), 1500295

61. Palau, Anna; Valencia, Sergio; Del-Valle, Nuria; Navau, Carles; Cialone, Matteo; Arora, Ashima; Kronast, Florian; Tennant, D. Alan; Obradors, Xavier; Sanchez, Alvaro; Puig, Teresa
Encoding Magnetic States in Monopole-Like Configurations Using Superconducting Dots
(2016) *Advanced Science*, 3 (11), 1600207

62. Rabaca, Sandra; Oliveira, Sandrina; Santos, Isabel C.; Gama, Vasco; Belo, Dulce; Lopes, Elsa B.; Canadell, Enric; Almeida, Manuel
Polymorphism and Superconductivity in Bilayer Molecular Metals (CNB-EDT-TF)$_4$I$_3$
(2016) *Inorganic Chemistry*, 55 (20), pp. 10343-10350
Also included in RL4

63. Queralto, Albert; de la Mata, Maria; Arbiol, Jordi; Obradors, Xavier; Puig, Teresa
Disentangling Epitaxial Growth Mechanisms of Solution Derived Functional Oxide Thin Films
(2016) *Advanced Materials Interfaces*, 3 (18), 1600392
Also included in RL3

64. Bartolome, Elena; Cayado, Pablo; Solana, Eduardo; Ricart, Susagna; Gazquez, Jaume; Mundet, Bernat; Coll, Mariona; Puig, Teresa; Obradors, Xavier; Valvidares, Manuel; Herrero-Martin, Javier; Gargiani, Pierlugi; Pellegrin, Eric
Magnetic stability against calcining of microwave-synthesized $CoFe_2O_4$ nanoparticles
(2016) *New Journal of Chemistry*, 40 (8), pp. 6890-6898

65. Lu, C. Y.; Puig, T.; Obradors, X.; Ricart, S.; Ros, J.
Ultra-fast microwave-assisted reverse microemulsion synthesis of Fe_3O_4@SiO_2 core-shell nanoparticles as a highly recyclable silver nanoparticle catalytic platform in the reduction of 4-nitroaniline
(2016) *RSC Advances*, 6 (91), pp. 88762-88769
Also included in RL5

66. Queralto, A.; de la Mata, M.; Martinez, L.; Magen, C.; Gibert, M.; Arbiol, J.; Huehne, R.; Obradors, X.; Puig, T.
Orientation symmetry breaking in self-assembled $Ce_{1-x}Gd_xO_{2-y}$ nanowires derived from chemical solutions
(2016) *RSC Advances*, 6 (99), pp. 97226-97236

67. Queralto, Albert; del Pino, Angel Perez; de la Mata, Maria; Tristany, Mar; Obradors, Xavier; Puig, Teresa; Trolier-McKinstry, Susan
Ultraviolet pulsed laser crystallization of $Ba_{0.8}Sr_{0.2}TiO_3$ films on $LaNiO_3$-coated silicon substrates
(2016) *Ceramics International*, 42 (3), pp. 4039-4047
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68. Palmer, X.; Pop, C.; Eloussifi, H.; Villarejo, B.; Roura, P.; Farjas, J.; Calleja, A.; Palau, A.; Obradors, X.; Puig, T.; Ricart, S.
Solution design for low-fluorine trifluoroacetate route to $YBa_2Cu_3O_7$ films
(2016) *Superconductor Science & Technology*, 29 (2), 24002

69. Meledin, A.; Turner, S.; Cayado, P.; Mundet, B.; Solano, E.; Ricart, S.; Ros, J.; Puig, T.; Obradors, X.; Van Tendeloo, G.
Unique nanostructural features in Fe, Mn-doped YBCO thin films
(2016) *Superconductor Science & Technology*, 29 (12), 125009

70. Carmo, D.; Colauto, F.; de Andrade, A. M. H.; Oliveira, A. A. M.; Ortiz, W. A.; Johansen, T. H.
Controllable injector for local flux entry into superconducting films
(2016) *Superconductor Science & Technology*, 29 (9), 95003

71. Calleja, Albert; Sort, Jordi; Ricart, Susagna; Granados, Xavier; Palmer, Xavier; Roxana Vlad, Valentina; Puig, Teresa; Obradors, Xavier
Composite films combining electrospun fiber network and epitaxial oxide by chemical solution deposition
(2016) *Journal of Sol-Gel Science and Technology*, 80 (2), pp. 277-284

72. Dias, Fabio Teixeira; Vieira, Valdemar das Neves; Nunes, Sabrina Esperanca; Pureur, Paulo; Schaf, Jacob; Farinela da Silva, Graziele Fernanda; Gouvea, Cristol de Paiva; Wolff-Fabris, Frederik; Kampert, Erik; Obradors, Xavier; Puig, Teresa; Roa Rovira, Joan Josep
Magnetic irreversibility: An important amendment in the zero-field-cooling and field-cooling method
(2016) *Japanese Journal of Applied Physics*, 55 (2), 23101

73. Zani, L.; Bayer, C. M.; Biancolini, M. E.; Bonifetto, R.; Bruzzone, P.; Brutti, C.; Ciazynski, D.; Coleman, M.; Duran, I.; Eisterer, M.; Fietz, W. H.; Gade, P. V.; Gaio, E.; Giorgetti, F.; Goldacker, W.; Gomory, F.; Granados, X.; Heller, R.; Hertout, P.; Hoa, C.; Kario, A.; Lacroix, B.; Lewandowska, M.; Maistrello, A.; Muzzi, L.; Nijhuis, A.; Nunio, F.; Panin, A.; Petrisor, T.; Poncet, J. -M.; Prokopec, R.; Sanmarti Cardona, M.; Savoldi, L.; Schlachter, S. I.; Sedlak, K.; Stepanov, B.; Tiseanu, I.; Torre, A.; Turtu, S.; Vallcorba, R.; Vojenciak, M.; Weiss, K. -P.; Wesche, R.; Yagotintsev, K.; Zanino, R.
Overview of Progress on the EU DEMO Reactor Magnet System Design
(2016) *IEEE Transactions on Applied Superconductivity*, 26 (4), 4204505

74. Hopkins, Simon C.; Mitchell-Williams, Tom B.; Vanden Bussche, Dries R.; Calleja, Albert; Vlad, Valentina Roxana; Vilardell, Marta; Granados, Xavier; Puig, Teresa; Obradors, Xavier; Usoskin, Alexander; Soloviov, Mykola; Vojenciak, Michal; Goemoery, Fedor; Van Driessche, Isabel; Baecker, Michael; Glowacki, Bartek A.
Low AC Loss Inkjet-Printed Multifilamentary YBCO Coated Conductors
(2016) *IEEE Transactions on Applied Superconductivity*, 26 (3), 6602905

75. Goncalves Sotelo, Guilherme; Carrera, Miquel; Lopez-Lopez, Josep; Granados, Xavier
H-Formulation FEM Modeling of the Current Distribution in 2G HTS Tapes and Its Experimental Validation Using Hall Probe Mapping
(2016) *IEEE Transactions on Applied Superconductivity*, 26 (8), 6603510

76. Sotelo, G. G.; Granados, X.; Carrera, M.; Lopez Lopez, J.
Torsional Dependence of the Critical Current in 2G Tapes
(2016) *IEEE Transactions on Applied Superconductivity*, 26 (3), 6602505

77. Dias, F. T.; Vieira, V. N.; Garcia, E. L.; Wolff-Fabris, F.; Kampert, E.; Gouvea, C. P.; Schaf, J.; Obradors, X.; Puig, T.; Roa, J. J.
Functional behavior of the anomalous magnetic relaxation observed in melt-textured $YBa_2Cu_3O_{7-\delta}$ samples showing the paramagnetic Meissner effect
(2016) *Physica C-Superconductivity and its Applications*, 529, pp. 44-49

78. Dias, F. T.; Vieira, V. N.; Wolff-Fabris, F.; Kampert, E.; Gouvea, C. P.; Campos, A. P. C.; Archanjo, B. S.; Schaf, J.; Obradors, X.; Puig, T.; Roa, J. J.; Sahoo, B. K.
High-field paramagnetic Meissner effect up to 14 T in melt-textured $YBa_2Cu_3O_{7-\delta}$
(2016) *Physica C-Superconductivity and its Applications*, 525, pp. 105-110,

79. De Keukeleere, Katrien; Cayado, Pablo; Meledin, Alexander; Valles, Ferran; De Roo, Jonathan; Rijckaert, Hannes; Pollefeyt, Glenn; Bruneel, Els; Palau, Anna; Coll, Mariona; Ricart, Susagna; Van Tendeloo, Gustaaf; Puig, Teresa; Obradors, Xavier; Van Driessche, Isabel
Superconducting $YBa_2Cu_3O_{7-\delta}$ Nanocomposites Using Preformed ZrO_2 Nanocrystals: Growth Mechanisms and Vortex Pinning Properties
(2016) *Advanced Electronic Materials*, 2 (10), 1600161

RL3 - OXIDE ELECTRONICS

80. Zubko, Pavlo; Wojdel, Jacek C.; Hadjimichael, Marios; Fernandez-Pena, Stephanie; Sene, Anais; Luk'yanchuk, Igor; Triscone, Jean-Marc; Iniguez, Jorge
Negative capacitance in multidomain ferroelectric superlattices
(2016) *Nature*, 534 (7608), pp. 524+

81. Guzman, Roger; Maurel, Laura; Langenberg, Eric; Lupini, Andrew R.; Algarabel, Pedro A.; Pardo, Jose A.; Magen, Cesar
Polar-Graded Multiferroic $SrMnO_3$ Thin Films
(2016) *Nano Letters*, 16 (4), pp. 2221-2227

82. Khestanova, Ekaterina; Dix, Nico; Fina, Ignasi; Scigaj, Mateusz; Manuel Rebled, Jose; Magen, Cesar; Estrade, Sonia; Peiro, Francesca; Herranz, Gervasi; Fontcuberta, Josep; Sanchez, Florencio
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