



INSTITUT DE CIÈNCIA DE  
MATERIALS DE BARCELONA



EXCELENCIA  
SEVERO  
OCHOA

# ARTICLES IN JOURNALS

A large, abstract graphic composed of overlapping, semi-transparent geometric shapes in shades of purple, blue, and grey, creating a sense of depth and movement. The year '2015' is prominently displayed in the center of this graphic.

2015



**CSIC**

CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

# ARTICLES IN JOURNALS 2015

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ICMAB’s researchers published 209 articles in international scientific journals in 2015. In this report you can find them ordered by research lines and ranked according their Impact Factor. Twenty-one of them belong to two sublines and are repeated in each one.

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# Articles in Journals 2015

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## RL1 - ENERGY STORAGE AND CONVERSION

1. Emmott, CJM; Rohr, JA; Campoy-Quiles, M; Kirchartz, T; Urbina, A; Ekins-Daukes, NJ; Nelson, J  
**Organic photovoltaic greenhouses: a unique application for semi-transparent PV?**  
(2015) *Energy & Environmental Science*, 8 (4), pp. 1317-1328
2. Halpern, E; Henning, A; Shtrikman, H; Rurali, R; Cartoixa, X; Rosenwaks, Y  
**Room Temperature Observation of Quantum Confinement in Single InAs Nanowires**  
(2015) *Nano Letters*, 15 (1), pp. 481-485
3. Schuster, F; Hetzl, M; Weiszer, S; Garrido, JA; de la Mata, M; Magen, C; Arbiol, J; Stutzmann, M  
**Position-Controlled Growth of GaN Nanowires and Nanotubes on Diamond by Molecular Beam Epitaxy**  
(2015) *Nano Letters*, 15 (3), pp. 1773-1779
4. Russo-Averchi, E; Plestina, JV; Tuetuencueoglu, G; Matteini, F; Dalmau-Mallorqui, A; de la Mata, M; Ruffer, D; Potts, HA; Arbiol, J; Conesa-Boj, S; Morral, AFI  
**High Yield of GaAs Nanowire Arrays on Si Mediated by the Pinning and Contact Angle of Ga**  
(2015) *Nano Letters*, 15 (5), pp. 2869-2874
5. Amato, M; Rurali, R  
**Shell-Thickness Controlled Semiconductor-Metal Transition in Si-SiC Core-Shell Nanowires**  
(2015) *Nano Letters*, 15 (5), pp. 3425-3430
6. Mukherjee, S; Givan, U; Senz, S; Bergeron, A; Francoeur, S; de la Mata, M; Arbiol, J; Sekiguchi, T; Itoh, KM; Isheim, D; Seidman, DN; Moutanabbir, O  
**Phonon Engineering in Isotopically Disordered Silicon Nanowires**  
(2015) *Nano Letters*, 15 (6), pp. 3885-3893
7. Olivares-Marin, M; Sorrentino, A; Lee, RC; Pereiro, E; Wu, NL; Tonti, D  
**Spatial Distributions of Discharged Products of Lithium-Oxygen Batteries Revealed by Synchrotron X-ray Transmission Microscopy**  
(2015) *Nano Letters*, 15 (10), pp. 6932-6938

8. Cartoixa, X; Colombo, L; Rurali, R  
**Thermal Rectification by Design in Telescopic Si Nanowires**  
(2015) *Nano Letters*, 15 (12), pp. 8255-8259
9. Liu, XF; Ha, ST; Zhang, Q; de la Mata, M; Magen, C; Arbiol, J; Sum, TC; Xiong, QH  
**Whispering Gallery Mode Lasing from Hexagonal Shaped Layered Lead Iodide Crystals**  
(2015) *ACS Nano*, 9 (1), pp. 687-695
10. Croguennec, L; Palacin, MR  
**Recent Achievements on Inorganic Electrode Materials for Lithium-Ion Batteries**  
(2015) *Journal of the American Chemical Society*, 137 (9), pp. 3140-3156
11. Lopez-Suarez, M; Abadal, G; Gammaitoni, L; Rurali, R  
**Noise energy harvesting in buckled BN nanoribbons from molecular dynamics**  
(2015) *Nano Energy*, 15 (), pp. 329-334
12. Deledalle, F; Kirchartz, T; Vezie, MS; Campoy-Quiles, M; Tuladhar, PS; Nelson, J; Durrant, JR  
**Understanding the Effect of Unintentional Doping on Transport Optimization and Analysis in Efficient Organic Bulk-Heterojunction Solar Cells**  
(2015) *Physical Review X*, 5 (1), 11032
13. Leguy, AMA; Hu, Y; Campoy-Quiles, M; Alonso, MI; Weber, OJ; Azarhoosh, P; van Schilfgaarde, M; Weller, MT; Bein, T; Nelson, J; Docampo, P; Barnes, PRF  
**Reversible Hydration of  $\text{CH}_3\text{NH}_3\text{PbI}_3$  in Films, Single Crystals, and Solar Cells**  
(2015) *Chemistry of Materials*, 27 (9), pp. 3397-3407
14. Coll, M; Gazquez, J; Fina, I; Khayat, Z; Quindeau, A; Alexe, M; Varela, M; Trolier-McKinstry, S; Obradors, X; Puig, T  
**Nanocrystalline Ferroelectric  $\text{BiFeO}_3$  Thin Films by Low-Temperature Atomic Layer Deposition**  
(2015) *Chemistry of Materials*, 27 (18), pp. 6322-6328  
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15. Aklalouch, M; Olivares-Marin, M; Lee, RC; Palomino, P; Enciso, E; Tonti, D  
**Mass-transport Control on the Discharge Mechanism in Li-O-2 Batteries Using Carbon Cathodes with Varied Porosity**  
(2015) *Chemsuschem*, 8 (20), pp. 3465-3471
16. Coll, M; Gomez, A; Mas-Marza, E; Almora, O; Garcia-Belmonte, G; Campoy-Quiles, M; Bisquert, J  
**Polarization Switching and Light-Enhanced Piezoelectricity in Lead Halide Perovskites**  
(2015) *Journal of Physical Chemistry Letters*, 6 (8), pp. 1408-1413

17. Listorti, A; Juarez-Perez, EJ; Frontera, C; Roiati, V; Garcia-Andrade, L; Colella, S; Rizzo, A; Ortiz, P; Mora-Sero, I  
**Effect of Mesostructured Layer upon Crystalline Properties and Device Performance on Perovskite Solar Cells**  
(2015) *Journal of Physical Chemistry Letters*, 6 (9), pp. 1628-1637
18. Ponrouch, A; Monti, D; Boschini, A; Steen, B; Johansson, P; Palacin, MR  
**Non-aqueous electrolytes for sodium-ion batteries**  
(2015) *Journal of Materials Chemistry A*, 3 (1), pp. 22-42
19. Hansson, R; Ericsson, LKE; Holmes, NP; Rysz, J; Opitz, A; Campoy-Quiles, M; Wang, EG; Barr, MG; Kilcoyne, ALD; Zhou, XJ; Dastoor, P; Moons, E  
**Vertical and lateral morphology effects on solar cell performance for a thiophene-quinoxaline copolymer: PC<sub>70</sub>BM blend**  
(2015) *Journal of Materials Chemistry A*, 3 (13), pp. 6970-6979
20. Nava-Avendano, J; Morales-Garcia, A; Ponrouch, A; Rouse, G; Frontera, C; Senguttuvan, P; Tarascon, JM; Arroyo-de Dompablo, ME; Palacin, MR  
**Taking steps forward in understanding the electrochemical behavior of Na<sub>2</sub>Ti<sub>3</sub>O<sub>7</sub>**  
(2015) *Journal of Materials Chemistry A*, 3 (44), pp. 22280-22286
21. Dubal, DP; Suarez-Guevara, J; Tonti, D; Enciso, E; Gomez-Romero, P  
**A high voltage solid state symmetric supercapacitor based on graphene-polyoxometalate hybrid electrodes with a hydroquinone doped hybrid gelelectrolyte**  
(2015) *Journal of Materials Chemistry A*, 3 (46), pp. 23483-23492
22. Tutuncuoglu, G; de la Mata, M; Deiana, D; Potts, H; Matteini, F; Arbiol, J; Morral, AFI  
**Towards defect-free 1-D GaAs/AlGaAs heterostructures based on GaAs nanomembranes**  
(2015) *Nanoscale*, 7 (46), pp. 19453-19460
23. Ferrando-Villalba, P; Lopeandia, AF; Alvarez, FX; Paul, B; de Tomas, C; Alonso, MI; Garriga, M; Goni, AR; Santiso, J; Garcia, G; Rodriguez-Viejo, J  
**Tailoring thermal conductivity by engineering compositional gradients in Si<sub>1-x</sub>Ge<sub>x</sub> superlattices**  
(2015) *Nano Research*, 8 (9), pp. 2833-2841
24. Li, DH; Liu, Y; de la Mata, M; Magen, C; Arbiol, J; Feng, YP; Xiong, QH  
**Strain-induced spatially indirect exciton recombination in zinc-blende/wurtzite CdS heterostructures**  
(2015) *Nano Research*, 8 (9), pp. 3035-3044

25. Tesio, AY; Blasi, D; Olivares-Marin, M; Ratera, I; Tonti, D; Veciana, J  
**Organic radicals for the enhancement of oxygen reduction reaction in Li-O<sub>2</sub> batteries**  
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26. Epifani, M; Diaz, R; Force, C; Comini, E; Manzanares, M; Andreu, T; Genc, A; Arbiol, J; Siciliano, P; Faglia, G; Morante, JR  
**Surface Modification of TiO<sub>2</sub> Nanocrystals by WO<sub>x</sub> Coating or Wrapping: Solvothermal Synthesis and Enhanced Surface Chemistry**  
(2015) *ACS Applied Materials & Interfaces*, 7 (12), pp. 6898-6908
27. del Pino, AP; Gyorgy, E; Logofatu, C; Puigmarti-Luis, J; Gao, W  
**Laser-induced chemical transformation of graphene oxide-iron oxide nanoparticles composites deposited on polymer substrates**  
(2015) *Carbon*, 93, pp. 373-383
28. de Pedro, I; Garcia-Saiz, A; Dupont, J; Migowski, P; Vallcorba, O; Junquera, J; Rius, J; Fernandez, JR  
**On the Colossal and Highly Anisotropic Thermal Expansion Exhibited by Imidazolium Salts**  
(2015) *Crystal Growth & Design*, 15 (11), pp. 5207-5212
29. Ponrouch, A; Palacin, MR  
**On the high and low temperature performances of Na-ion battery materials: Hard carbon as a case study**  
(2015) *Electrochemistry Communications*, 54, pp. 51-54
30. Landa-Medrano, I; Olivares-Marin, M; Pinedo, R; de Larramendi, IR; Rojo, T; Tonti, D  
**Operando UV-visible spectroscopy evidence of the reactions of iodide as redox mediator in Li-O<sub>2</sub> batteries**  
(2015) *Electrochemistry Communications*, 59, pp. 24-27
31. Toudert, J; Serna, R; Lopez-Conesa, L; Rebled, JM; Peiro, F; Estrade, S; Barrio, LC  
**Rare Earth-Ion/Nanosilicon Ultrathin Layer: A Versatile Nanohybrid Light-Emitting Building Block for Active Optical Metamaterials**  
(2015) *Journal of Physical Chemistry C*, 119 (21), pp. 11800-11808
32. Varon, M; Arbiol, J; Puntès, VF  
**High Aspect Ratio Gold Nanorods Grown with Platinum Seeds**  
(2015) *Journal of Physical Chemistry C*, 119 (21), pp. 11818-11825

33. Alonso, MI; Bailo, E; Garriga, M; Molero, A; Vaccaro, PO; Goni, AR; Ruiz, A; Alonso, M  
**Composition and Strain Imaging of Epitaxial In-Plane SiGe Alloy Nanowires by Micro-Raman Spectroscopy**  
(2015) *Journal of Physical Chemistry C*, 119 (38), pp. 22154-22163
34. Carretero, NM; Lichtenstein, MP; Perez, E; Sandoval, S; Tobias, G; Sunol, C; Casan-Pastor, N  
**Enhanced Charge Capacity in Iridium Oxide-Graphene Oxide Hybrids**  
(2015) *Electrochimica Acta*, 157, pp. 369-377
35. Niu, PF; Fernandez-Sanchez, C; Gich, M; Ayora, C; Roig, A  
**Electroanalytical Assessment of Heavy Metals in Waters with Bismuth Nanoparticle-Porous Carbon Paste Electrodes**  
(2015) *Electrochimica Acta*, 165, pp. 155-161
36. Stern-Taulats, E; Planes, A; Lloveras, P; Barrio, M; Tamarit, JL; Pramanick, S; Majumdar, S; Yuce, S; Emre, B; Frontera, C; Manosa, L  
**Tailoring barocaloric and magnetocaloric properties in low-hysteresis magnetic shape memory alloys**  
(2015) *Acta Materialia*, 96, pp. 324-332  
*Also included in RL3*
37. Bashouti, MY; Garzuzi, CA; de la Mata, M; Arbiol, J; Ristein, J; Haick, H; Christiansen, S  
**Role of Silicon Nanowire Diameter for Alkyl (Chain Lengths C<sub>1</sub>-C<sub>18</sub>) Passivation Efficiency through Si-C Bonds**  
(2015) *Langmuir*, 31 (8), pp. 2430-2437
38. Luo, ZS; Ibanez, M; Antolin, AM; Genc, A; Shavel, A; Contreras, S; Medina, F; Arbiol, J; Cabot, A  
**Size and Aspect Ratio Control of Pd<sub>2</sub>Sn Nanorods and Their Water Denitration Properties**  
(2015) *Langmuir*, 31 (13), pp. 3952-3957
39. Fontanet, M; Rodriguez, M; Fontrodona, X; Romero, I; Vinas, C; Teixidor, F  
**Intramolecular hydrogen bonding stabilizes the nuclearity of complexes. A comparative study based on the H-carborane and Me-carborane framework**  
(2015) *Dalton Transactions*, 44 (22), pp. 10399-10409  
*Also included in RL4*
40. Simao, CD; Reparaz, JS; Wagner, MR; Graczykowski, B; Kreuzer, M; Ruiz-Blanco, YB; Garcia, Y; Malho, JM; Goni, AR; Ahopelto, J; Torres, CMS  
**Optical and mechanical properties of nanofibrillated cellulose: Toward a robust platform for next-generation green technologies**  
(2015) *Carbohydrate Polymers*, 126, pp. 40-46

41. Heinrich, D; Goni, AR; Osan, TM; Cerioni, LMC; Smessaert, A; Klapp, SHL; Faraudo, J; Pusiol, DJ; Thomsen, C  
**Effects of magnetic field gradients on the aggregation dynamics of colloidal magnetic nanoparticles**  
(2015) *Soft Matter*, 11 (38), pp. 7606-7616  
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42. Hernandez-Garrido, JC; Gaona, D; Gomez, DM; Gatica, JM; Vidal, H; Sanz, O; Rebled, JM; Peiro, F; Calvino, JJ  
**Comparative study of the catalytic performance and final surface structure of Co<sub>3</sub>O<sub>4</sub>/La-CeO<sub>2</sub> washcoated ceramic and metallic honeycomb monoliths**  
(2015) *Catalysis Today*, 253, pp. 190-198
43. Datcu, A; Duta, L; del Pino, AP; Logofatu, C; Luculescu, C; Duta, A; Perniu, D; Gyorgy, E  
**One-step preparation of nitrogen doped titanium oxide/Au/reduced graphene oxide composite thin films for photocatalytic applications**  
(2015) *RSC Advances*, 5 (61), pp. 49771-49779
44. Lopez-Aranguren, P; Builes, S; Fraile, J; Lopez-Periago, A; Vega, LF; Domingo, C  
**Hybrid aminopolymer-silica materials for efficient CO<sub>2</sub> adsorption**  
(2015) *RSC Advances*, 5 (127), pp. 104943-104953  
*Also included in RL5*
45. Dettori, R; Melis, C; Cartoixa, X; Rurali, R; Colombo, L  
**Model for thermal conductivity in nanoporous silicon from atomistic simulations**  
(2015) *Physical Review B*, 91 (5), 54305
46. Beeler, M; Lim, CB; Hille, P; Bleuse, J; Schormann, J; de la Mata, M; Arbiol, J; Eickhoff, M; Monroy, E  
**Long-lived excitons in GaN/AlN nanowire heterostructures**  
(2015) *Physical Review B*, 91 (20), 205440
47. Brivio, F; Frost, JM; Skelton, JM; Jackson, AJ; Weber, OJ; Weller, MT; Goni, AR; Leguy, AMA; Barnes, PRF; Walsh, A  
**Lattice dynamics and vibrational spectra of the orthorhombic, tetragonal, and cubic phases of methylammonium lead iodide**  
(2015) *Physical Review B*, 92 (14), 144308
48. Irisarri, E; Ponrouch, A; Palacin, MR  
**Review-Hard Carbon Negative Electrode Materials for Sodium-Ion Batteries**  
(2015) *Journal of the Electrochemical Society*, 162 (14), pp. 2476-2482



49. Iermakova, DI; Dugas, R; Palacin, MR; Ponrouch, A  
**On the Comparative Stability of Li and Na Metal Anode Interfaces in Conventional Alkyl Carbonate Electrolytes**  
(2015) *Journal of the Electrochemical Society*, 162 (13), pp. 7060-7066
50. Builes, S; Lopez-Aranguren, P; Fraile, J; Vega, LF; Domingo, C  
**Analysis of CO<sub>2</sub> Adsorption in Amine-Functionalized Porous Silicas by Molecular Simulations**  
(2015) *Energy & Fuels*, 29 (6), pp. 3855-3862
51. Mata, I; Molins, E; Alkorta, I; Espinosa, E  
**The Paradox of Hydrogen-Bonded Anion Anion Aggregates in Oxoanions: A Fundamental Electrostatic Problem Explained in Terms of Electrophilic ·Nucleophilic Interactions**  
(2015) *Journal of Physical Chemistry A*, 119 (1), pp. 183-194  
*Also included in RL4*
52. Nava-Avendano, J; Arroyo-de Dompablo, ME; Frontera, C; Ayllon, JA; Palacin, MR  
**Study of sodium manganese fluorides as positive electrodes for Na-ion batteries**  
(2015) *Solid State Ionics*, 278, pp. 106-113
53. Calligaris, GA; Franco, MKKD; Aldrige, LP; Rodrigues, MS; Beraldo, AL; Yokaichiya, F; Turrillas, X; Cardoso, LP  
**Assessing the pozzolanic activity of cements with added sugar cane straw ash by synchrotron X-ray diffraction and Rietveld analysis**  
(2015) *Construction and Building Materials*, 98, pp. 44-50
54. Nava-Avendano, J; Ayllon, JA; Frontera, C; Oro-Sole, J; Estruga, M; Molins, E; Palacin, MR  
**Low temperature synthesis and characterization of Na-M-(O)-F phases with M = Ti, V**  
(2015) *Journal of Solid State Chemistry*, 226, pp. 286-294
55. Lagos, Y; Palou-Mir, J; Bauza, A; Fiol, JJ; Garcia-Raso, A; Terron, A; Molins, E; Barcelo-Oliver, M; Frontera, A  
**New chloride-dimethylsulfoxide-iridium(III) complex with histaminium**  
(2015) *Polyhedron*, 102, pp. 735-740
56. Russo-Averchi, E; Tutuncuoglu, G; Dalmau-Mallorqui, A; Mundet, IC; de la Mata, M; Ruffer, D; Arbiol, J; Conesa-Boj, S; Morral, AFI  
**Bottom-up engineering of InAs at the nanoscale: From V-shaped nanomembranes to nanowires**  
(2015) *Journal of Crystal Growth*, 420, pp. 47-56

57. Ruiz, CM; Perez-Rodriguez, A; Arbiol, J; Morante, JR; Bermudez, V  
**Impact of the structure of Mo(S,Se)<sub>2</sub> interfacial region in electrodeposited CuIn(S,Se)<sub>2</sub> solar cells**  
(2015) *Physica Status Solidi A-Applications and Materials Science*, 212 (1), pp. 61-66
58. Shafranovsky, EA; Petrov, YI; Molins, E  
**Aerosol Nanoparticles in the Fe-Sn System over a Wide Composition Range**  
(2015) *Doklady Physical Chemistry*, 460, pp. 19-25
59. Alonso, MI; Ruiz, A; Alonso, M; Bailo, E; Garriga, M; Molero, A; Vaccaro, PO; Goni, AR  
**Growth and characterization of epitaxial in-plane SiGe alloy nanowires**  
(2015) *Materials Today-Proceedings*, 2 (2), pp. 548-556
60. Epifani, M; Comini, E; Diaz, R; Genc, A; Arbiol, J; Andreu, T; Siciliano, P; Faglia, G; Morante, JR  
**Surface modification, heterojunctions, and other structures: composing metal oxide nanocrystals for chemical sensors**  
(2015) *Oxide-Based Materials and Devices VI*, 9364, 936415
61. Fuertes, A  
**Metal oxynitrides as emerging materials with photocatalytic and electronic properties**  
(2015) *Materials Horizons*, 2 (5), pp. 453-461  
*Also included in RL3*
62. Corcoles, L; Abad, J; Padilla, J; Urbina, A  
**Wavelength influence on the photodegradation of P3HT:PCBM organic solar cells**  
(2015) *Solar Energy Materials and Solar Cells*, 141, pp. 423-428
63. Schall, AP; Iavicoli, P; Qi, ZJ; Menko, J; Lu, Y; Linares, M; de Paula, JC; Amabilino, DB; Johnson, AT; Smith, WF  
**Photoconductivity of Nanofilaments That are Self-Assembled from a Porphyrin with Long Alkyl-Chain Substituents**  
(2015) *Journal of Physical Chemistry C*, 119 (46), pp. 26154-26163  
*Also included in RL4*
64. Oulad-Zian, Y; Sanchez-Valencia, JR; Parra-Barranco, J; Hamad, S; Espinos, JP; Barranco, A; Ferrer, J; Coll, M; Borrás, A  
**Ultraviolet Pretreatment of Titanium Dioxide and Tin-Doped Indium Oxide Surfaces as a Promoter of the Adsorption of Organic Molecules in Dry Deposition Processes: Light Patterning of Organic Nanowires**  
(2015) *Langmuir*, 31 (30), pp. 8294-8302  
*Also included in RL4*

## RL2 - SUPERCONDUCTORS FOR POWER APPLICATIONS

65. Cobas, R; Munoz-Perez, S; Cadogan, S; Ridgway, MC; Obradors, X  
**Surface Charge Reversal Method for High-Resolution Inkjet Printing of Functional Water-Based Inks**  
 (2015) *Advanced Functional Materials*, 25 (5), pp. 768-775  
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66. Queralto, A; del Pino, AP; de la Mata, M; Arbiol, J; Obradors, X; Puig, T  
**Ultrafast Crystallization of Ce<sub>0.9</sub>Zr<sub>0.1</sub>O<sub>2-y</sub> Epitaxial Films on Flexible Technical Substrates by Pulsed Laser Irradiation of Chemical Solution Derived Precursor Layers**  
 (2015) *Crystal Growth & Design*, 15 (4), pp. 1957-1967
67. Pollefeyt, G; Meledin, A; Pop, C; Ricart, S; Huhne, R; Van Tendeloo, G; Van Driessche, I  
**Chemical stability of YBiO<sub>3</sub> buffer layers for implementation in YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-δ</sub> coated conductors**  
 (2015) *Acta Materialia*, 100, pp. 224-231
68. Silva-Guillen, JA; Noat, Y; Cren, T; Sacks, W; Canadell, E; Ordejon, P  
**Tunneling and electronic structure of the two-gap superconductor MgB<sub>2</sub>**  
 (2015) *Physical Review B*, 92 (6), 64514
69. Noat, Y; Silva-Guillen, JA; Cren, T; Cherkez, V; Brun, C; Pons, S; Debontridder, F; Roditchev, D; Sacks, W; Cario, L; Ordejon, P; Garcia, A; Canadell, E  
**Quasiparticle spectra of 2H-NbSe<sub>2</sub>: Two-band superconductivity and the role of tunneling selectivity**  
 (2015) *Physical Review B*, 92 (13), 134510
70. Rouco, V; Palau, A; Monton, C; Del-Valle, N; Navau, C; Sanchez, A; Obradors, X; Puig, T  
**Geometrically controlled ratchet effect with collective vortex motion**  
 (2015) *New Journal of Physics*, 17, 73022
71. Queralto, A; del Pino, AP; de la Mata, M; Arbiol, J; Tristany, M; Gomez, A; Obradors, X; Puig, T  
**Growth of ferroelectric Ba<sub>0.8</sub>Sr<sub>0.2</sub>TiO<sub>3</sub> epitaxial films by ultraviolet pulsed laser irradiation of chemical solution derived precursor layers**  
 (2015) *Applied Physics Letters*, 106 (26), 262903  
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72. Prokhorova, TG; Buravov, LI; Yagubskii, EB; Zorina, LV; Simonov, SV; Zverev, VN; Shibaeva, RP; Canadell, E  
**Effect of Halopyridine Guest Molecules on the Structure and Superconducting Properties of  $\beta''$ -[Bis(ethylenedithio)tetrathiafulvalene]<sub>4</sub>(H<sub>3</sub>O)[Fe(C<sub>2</sub>O<sub>4</sub>)<sub>3</sub>] · Guest Crystals**  
 (2015) *European Journal of Inorganic Chemistry*, (34), pp. 5611-5620  
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**High pinning performance of YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-x</sub> films added with Y<sub>2</sub>O<sub>3</sub> nanoparticulate defects**  
 (2015) *Superconductor Science & Technology*, 28 (2), 24002
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**In situ study through electrical resistance of growth rate of trifluoroacetate-based solution-derived YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub> films**  
 (2015) *Superconductor Science & Technology*, 28 (2), 24006
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**Epitaxial YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-x</sub> nanocomposite thin films from colloidal solutions**  
 (2015) *Superconductor Science & Technology*, 28 (12), 124007
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