ICMAB | INSTITUT DE CIÈNCIA DE MATERIALS DE BARCELONA

EXCELENCIA SEVERO OCHOA

ARTICLES IN JOURNALS

2018

CSIC

CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

ARTICLES IN JOURNALS 2018

ICMAB's researchers published 229 articles in international scientific journals in 2018. 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 2018

RL1 - ENERGY STORAGE AND CONVERSION

1. Rosa Palacin, M.
   Understanding ageing in Li-ion batteries: a chemical issue
   (2018), *Chemical Society Reviews*, 47 (13), pp. 4924 - 4933

2. Espinha, Andre; Dore, Camilla; Matricardi, Cristiano; Isabel Alonso, Maria; Goni, Alejandro R.; Mihi, Agustin
   Hydroxypropyl cellulose photonic architectures by soft nanoimprinting lithography
   (2018), *Nature Photonics*, 12 (6), pp. 343 - +

3. Avci, Civan; Imaz, Inhar; Carne-Sanchez, Arnau; Angel Pariente, Jose; Tasios, Nikos; Perez-Carvajal, Javier; Isabel Alonso, Maria; Blanco, Alvaro; Dijkstra, Marjolein; Lopez, Cefe; Maspoch, Daniel
   Self-assembly of polyhedral metal-organic framework particles into three-dimensional ordered superstructures
   (2018), *Nature Chemistry*, 10 (1), pp. 78 - 84

4. Tan, Fangchang; Lopez-Periago, Ana; Light, Mark E.; Cirera, Jordi; Ruiz, Eliseo; Borras, Alejandro; Teixidor, Francesc; Vinas, Clara; Domingo, Concepcion; Giner Planas, Jose
   An Unprecedented Stimuli-Controlled Single-Crystal Reversible Phase Transition of a Metal-Organic Framework and Its Application to a Novel Method of Guest Encapsulation
   (2018), *Advanced Materials*, 30 (29), 1800726

5. Molet, Pau; Luis Garcia-Pomar, Juan; Matricardi, Cristiano; Garriga, Miquel; Isabel Alonso, Maria; Mihi, Agustin
   Ultrathin Semiconductor Superabsorbers from the Visible to the Near-Infrared
   (2018), *Advanced Materials*, 30 (9), 1705876

6. Neuderth, Paula; Hille, Pascal; Marti-Sanchez, Sara; de la Mata, Maria; Coll, Mariona; Arbiol, Jordi; Eickhoff, Martin
   Optical Analysis of Oxygen Self-Diffusion in Ultrathin CeO2 Layers at Low Temperatures
   (2018), *Advanced Energy Materials*, 8 (29), 1802120

7. Irisarri, E.; Amini, N.; Tennison, S.; Ghimbeu, C. Matei; Gorka, J.; Vix-Guterl, C.; Ponrouch, A.; Palacin, M. R.
   Optimization of Large Scale Produced Hard Carbon Performance in Na-Ion Batteries: Effect of Precursor, Temperature and Processing Conditions
   (2018), *Journal of the Electrochemical Society*, 165 (16), pp. A4058 - A4066

8. Matricardi, Cristiano; Hanske, Christoph; Garcia-Pomar, Juan Luis; Langer, Judith; Mihi, Agustin; Liz-Marzan, Luis M.
Gold Nanoparticle Plasmonic Superlattices as Surface-Enhanced Raman Spectroscopy Substrates
(2018), *ACS Nano*, 12 (8), pp. 8531 - 8539

9. Sandoval, Stefania; Kepic, Dejan; Perez del Pino, Angel; Gyorgy, Eniko; Gomez, Andres; Pfannmoeller, Martin; Van Tendeloo, Gustaaf; Ballesteros, Belen; Tobias, Gerard
Selective Laser-Assisted Synthesis of Tubular van der Waals Heterostructures of Single-Layered PbI2 within Carbon Nanotubes Exhibiting Carrier Photogeneration
(2018), *ACS Nano*, 12 (7), pp. 6648 - 6656
Also included in RL5

10. Gomez, A.; Sanchez, S.; Campoy-Quiles, Mariano; Abate, A.
Topological distribution of reversible and non-reversible degradation in perovskite solar cells
(2018), *Nano Energy*, 45 (0), pp. 94 - 100

11. Dislaki, Evangelia; Robbennolt, Shauna; Campoy-Quiles, Mariano; Nogues, Josep; Pellicer, Eva; Sort, Jordi
Coercivity Modulation in Fe-Cu Pseudo-Ordered Porous Thin Films Controlled by an Applied Voltage: A Sustainable, Energy-Efficient Approach to Magnetoelectrically Driven Materials
(2018), *Advanced Science*, 5 (8), 1800499

12. Fasolato, Claudia; De Luca, Marta; Djomani, Doriane; Vincent, Laetitia; Renard, Charles; Di Iorio, Giulia; Paillard, Vincent; Amato, Michele; Rurali, Riccardo; Zardo, Ilaria
Crystalline, Phononic, and Electronic Properties of Heterostructured Polytypic Ge Nanowires by Raman Spectroscopy
(2018), *Nano Letters*, 18 (11), pp. 7075 - 7084

13. Chocarro-Ruiz, Blanca; Perez-Carvajal, Javier; Avci, Civan; Calvo-Lozano, Olalla; Isabel Alonso, Maria; Maspoch, Daniel; Lechuga, Laura M.
A CO2 optical sensor based on self-assembled metal-organic framework nanoparticles
(2018), *Journal of Materials Chemistry A*, 6 (27), pp. 13171 - 13177

14. Bi, Zhuoneng; Rodriguez-Martinez, Xabier; Aranda, Clara; Pascual-San-Jose, Enrique; Goni, Alejandro R.; Campoy-Quiles, Mariano; Xu, Xueqing; Guerrero, Antonio
Defect tolerant perovskite solar cells from blade coated non-toxic solvents
(2018), *Journal of Materials Chemistry A*, 6 (39), pp. 19085 - 19093

15. Neuderth, P.; Hille, P.; Schoermann, J.; Frank, A.; Reitz, C.; Marti-Sanchez, S.; de la Mata, M.; Coll, M.; Arbiol, J.; Marschall, R.; Eickhoff, M.
Passivation layers for nanostructured photoanodes: ultra-thin oxides on InGaN nanowires
(2018), *Journal of Materials Chemistry A*, 6 (2), pp. 565 - 573

16. Perez del Pino, Angel; Martinez Villarroya, Andreu; Chuquitarqui, Alex; Logofatu, Constantin; Tonti, Dino; Gyorgy, Eniko
Reactive laser synthesis of nitrogen-doped hybrid graphene-based electrodes for energy storage
(2018), *Journal of Materials Chemistry A*, 6 (33), pp. 16074 - 16086

17. Casas-Cabanas, Montse; Radin, Maxwell D.; Kim, Jongsik; Grey, Clare P.; Van der Ven, Anton; Rosa Palacin, M.
The nickel battery positive electrode revisited: stability and structure of the beta-NiOOH phase
(2018), *Journal of Materials Chemistry A*, 6 (39), pp. 19256 - 19265

18. Tchitchekova, Deyana S.; Ponrouch, Alexandre; Verrelli, Roberta; Broux, Thibault; Frontera, Carlos; Sorrentino, Andrea; Barde, Fanny; Biskup, Neven; Elena Arroyo-de Dompablo, M.; Rosa Palacin, M.
Electrochemical Intercalation of Calcium and Magnesium in TiS2: Fundamental Studies Related to Multivalent Battery Applications
(2018), *Chemistry of Materials*, 30 (3), pp. 847 - 856

19. Shimizu, Tomoko K.; Maier, Sabine; Verdaguer, Albert; Velasco-Velez, Juan-Jesus; Salmeron, Miguel
Water at surfaces and interfaces: From molecules to ice and bulk liquid
(2018), *Progress in Surface Science*, 93 (4), pp. 87 - 107

20. Nadeem, Immad M.; Treacy, Jon P. W.; Selcuk, Sencer; Torrelles, Xavier; Hussain, Hadeel; Wilson, Axel; Grinter, David C.; Cabailh, Gregory; Bikondoa, Oier; Nicklin, Christopher; Selloni, Annabella; Zegenhagen, Jorg; Lindsay, Robert; Thornton, Geoff
Water Dissociates at the Aqueous Interface with Reduced Anatase TiO2 (101)
(2018), *Journal of Physical Chemistry Letters*, 9 (11), pp. 3131 - 3136

21. Zhang, Jin; Quintana, Alberto; Menendez, Enric; Coll, Mariona; Pellicer, Eva; Sort, Jordi
Electrodeposited Ni-Based Magnetic Mesoporous Films as Smart Surfaces for Atomic Layer Deposition: An All-Chemical Deposition Approach toward 3D Nanoengineered Composite Layers
(2018), *ACS Applied Materials & Interfaces*, 10 (17), pp. 14877 - 14885
Also included in RL2

22. Dore, Camilla; Osmond, Johann; Mihi, Agustin
A water-processable cellulose-based resist for advanced nanofabrication
(2018), *Nanoscale*, 10 (37), pp. 17884 - 17892

23. Perez del Pino, Angel; Gonzalez-Campo, Arantzazu; Giraldo, Sandra; Peral, Jose; Gyorgy, Eniko; Logofatu, Constantin; deMello, Andrew J.; Puigmarti-Luis, Josep
Synthesis of graphene-based photocatalysts for water splitting by laser-induced doping with ionic liquids
(2018), *Carbon*, 130 (0), pp. 48 - 58

24. Verrelli, R.; Black, A. P.; Pattanathummasid, C.; Tchitchekova, D. S.; Ponrouch, A.; Oro-Sole, J.; Frontera, C.; Barde, F.; Rozier, P.; Palacin, M. R.
On the strange case of divalent ions intercalation in V2O5
(2018), *Journal of Power Sources*, 407 (0), pp. 162 - 172

25. Trocoli, R.; Kasiri, G.; La Mantia, F.
Phase transformation of copper hexacyanoferrate (KCuFe(CN)(6)) during zinc insertion: Effect of co-ion intercalation
(2018), *Journal of Power Sources*, 400 (0), pp. 167 - 171

26. Homewood, Tom; Frith, James T.; Vivek, J. Padmanabhan; Casan-Pastor, Nieves; Tonti, Dino; Owen, John R.; Garcia-Araez, Nuria
Using polyoxometalates to enhance the capacity of lithium-oxygen batteries
(2018), *Chemical Communications*, 54 (69), pp. 9599 - 9602

27. Sanchez-Diaz, Antonio; Rodriguez-Martinez, Xabier; Corcoles-Guija, Laura; Mora-Martin, German; Campoy-Quiles, Mariano
High-Throughput Multiparametric Screening of Solution Processed Bulk Heterojunction Solar Cells
(2018), *Advanced Electronic Materials*, 4 (10), 1700477

28. Borras, Alejandro; Goncalves, Gil; Marban, Gregorio; Sandoval, Stefania; Pinto, Susana; Marques, Paula A. A. P.; Fraile, Julio; Tobias, Gerard; Lopez-Periago, Ana M.; Domingo, Concepcion
Preparation and Characterization of Graphene Oxide Aerogels: Exploring the Limits of Supercritical CO2 Fabrication Methods
(2018), *Chemistry-A European Journal*, 24 (59), pp. 15903 - 15911

29. Niu, Pengfei; Gich, Marti; Roig, Anna; Fernandez-Sanchez, Cesar
Metal Nanoparticle Carbon Gel Composites in Environmental Water Sensing Applications
(2018), *Chemical Record*, 18 (0), pp. 749 - 758

30. Pinto, Alexandre; Picciche, Miriam; Griera, Rosa; Molins, Elies; Bosch, Joan; Amat, Mercedes
Studies on the Synthesis of Phlegmarine-Type Lycopodium Alkaloids: Enantioselective Synthesis of (-)-Cermizine B, (+)-Serratezomine E, and (+)-Luciduline
(2018), *Journal of Organic Chemistry*, 83 (15), pp. 8364 - 8375

31. Pascual-San Jose, Enrique; Sanchez-Diaz, Antonio; Stella, Marco; Martinez-Ferrero, Eugenia; Isabel Alonso, Maria; Campoy-Quiles, Mariano
Comparing the potential of different strategies for colour tuning in thin film photovoltaic technologies
(2018), *Science and Technology of Advanced Materials*, 19 (1), pp. 823 - 835

32. Francisco-Lopez, Adrian; Charles, Bethan; Weber, Oliver J.; Alonso, M. Isabel; Garriga, Miquel; Campoy-Quiles, Mariano; Weller, Mark T.; Goni, Alejandro R.
Pressure-Induced Locking of Methylammonium Cations versus Amorphization in Hybrid Lead Iodide Perovskites
(2018), *Journal of Physical Chemistry C*, 122 (38), pp. 22073 - 22082

33. Salzillo, T.; d'Agostino, S.; Rivalta, A.; Giunchi, A.; Brillante, A.; Della Valle, R. G.; Bedoya-Martinez, N.; Zojer, E.; Grepioni, F.; Venuti, E.
Structural, Spectroscopic, and Computational Characterization of the Concomitant Polymorphs of the Natural Semiconductor Indigo
(2018), *Journal of Physical Chemistry C*, 122 (32), pp. 18422 - 18431

34. May-Masnou, Anna; Soler, Lluis; Torras, Miquel; Salles, Pol; Llorca, Jordi; Roig, Anna
Fast and Simple Microwave Synthesis of TiO2/Au Nanoparticles for Gas-Phase Photocatalytic Hydrogen Generation
(2018), *Frontiers in Chemistry*, 6 (0), 110

35. Ferrando-Villalba, P.; D'Ortenzi, L.; Dalkiranis, G. G.; Cara, E.; Lopeandia, A. F.; Abad, Ll.; Rurali, R.; Cartoixa, X.; De Leo, N.; Saghi, Z.; Jacob, M.; Gambacorti, N.; Boarino, L.; Rodriguez-Viejo, J.
Impact of pore anisotropy on the thermal conductivity of porous Si nanowires
(2018), *Scientific Reports*, 8 (0), 12796

    Ferrando-Villalba, P.; D'Ortenzi, L.; Dalkiranis, G. G.; Cara, E.; Lopeandia, A. F.; Abad, Ll.; Rurali, R.; Cartoixa, X.; De Leo, N.; Saghi, Z.; Jacob, M.; Gambacorti, N.; Boarino, L.; Rodriguez-Viejo, J.
    Impact of pore anisotropy on the thermal conductivity of porous Si nanowires. *Author correction*
    (2018), *Scientific Reports*, 8 (0), 15033

36. Tchitchekova, Deyana S.; Frontera, Carlos; Ponrouch, Alexandre; Krich, Christopher; Barde, Fanny; Rosa Palacin, M.
Electrochemical calcium extraction from 1D-Ca3Co2O6
(2018), *Dalton Transactions*, 47 (33), pp. 11298 - 11302

37. Sanchez-Sala, Marta; Vallcorba, Oriol; Domingo, Concepcion; Ayllon, Jose A.
A Flexible Hydrogen Bonded Organic Framework That Reversibly Adsorbs Acetic Acid: gamma Trimesic Acid
(2018), *Crystal Growth & Design*, 18 (11), pp. 6621 - 6626

38. Fuentes, Isabel; Andrio, Andreu; Garcia-Bernabe, Abel; Escorihuela, Jorge; Vinas, Clara; Teixidor, Francesc; Compan, Vicente
Structural and dielectric properties of cobaltacarborane composite polybenzimidazole membranes as solid polymer electrolytes at high temperature
(2018), *Physical Chemistry Chemical Physics*, 20 (15), pp. 10173 - 10184

39. Rurali, Riccardo; Cartoixa, Xavier; Bedeaux, Dick; Kjelstrup, Signe; Colombo, Luciano
The thermal boundary resistance at semiconductor interfaces: a critical appraisal of the Onsager vs. Kapitza formalisms
(2018), *Physical Chemistry Chemical Physics*, 20 (35), pp. 22623 - 22628

40. Reparaz, J. S.; Pereira da Silva, K.; Romero, A. H.; Serrano, J.; Wagner, M. R.; Callsen, G.; Choi, S. J.; Speck, J. S.; Goni, A. R.
Comparative study of the pressure dependence of optical-phonon transverse-effective charges and linewidths in wurtzite InN
(2018), *Physical Review B*, 98 (16), 165204

41. Seijas-Bellido, Juan Antonio; Aramberri, Hugo; Iniguez, Jorge; Rurali, Riccardo
Electric control of the heat flux through electrophononic effects
(2018), *Physical Review B*, 97 (18), 184306

42. Ortiz, Pedro D.; Castillo-Rodriguez, Judith; Zarate, Ximena; Martin-Trasanco, Rudy; Benito, Monica; Mata, Ignasi; Molins, Elies; Schott, Eduardo
Synthesis of Au Nanoparticles Assisted by Linker-Modified TiO2 Nanoparticles
(2018), *Langmuir*, 34 (32), pp. 9402 - 9409

43. Rodriguez-Martinez, Xabier; Sanchez-Diaz, Antonio; Liu, Guilin; Nino, M. A.; Cabanillas-Gonzalez, Juan; Campoy-Quiles, Mariano
Combinatorial optimization of evaporated bilayer small molecule organic solar cells through orthogonal thickness gradients
(2018), *Organic Electronics*, 59 (0), pp. 288 - 292

44. Ventura, Michele; Mullaliu, Angelo; Ciurduc, Diana Elena; Zappoli, Sergio; Giuli, Gabriele; Tonti, Dino; Enciso, Eduardo; Giorgetti, Marco
Thin layer films of copper hexacyanoferrate: Structure identification and analytical applications
(2018), *Journal of Electroanalytical Chemistry*, 827 (0), pp. 10 - 20

45. Moreno Fernandez, Harol; Zangrando, Marco; Sauthier, Guillaume; Goni, Alejandro R.; Carlino, Vincent; Pellegrin, Eric
Towards chemically neutral carbon cleaning processes: plasma cleaning of Ni, Rh and Al reflective optical coatings and thin Al filters for free-electron lasers and synchrotron beamline applications
(2018), *Journal of Synchrotron Radiation*, 25 (0), pp. 1642 - 1649

46. Gruenebohm, Anna; Ma, Yang-Bin; Marathe, Madhura; Xu, Bai-Xiang; Albe, Karsten; Kalcher, Constanze; Meyer, Kai-Christian; Shvartsman, Vladimir V.; Lupascu, Doru C.; Ederer, Claude
Origins of the Inverse Electrocaloric Effect
(2018), *Energy Technology*, 6 (8), pp. 1491 - 1511

47. Lopez-Periago, Ana M.; Domingo, Concepcion
Features of supercritical CO2 in the delicate world of the nanopores
(2018), *Journal of Supercritical Fluids*, 134 (0), pp. 204 - 213
Also included in RL5

48. Gyorgy, Eniko; Logofatu, Constantin; Perez del Pino, Angel; Datcu, Angela; Pascu, Oana; Ivan, Raluca
Enhanced UV- and visible-light driven photocatalytic performances and recycling properties of graphene oxide/ZnO hybrid layers
(2018), *Ceramics International*, 44 (2), pp. 1826 - 1835

49. Queralto, A.; Perez del Pino, A.; Logofatu, C.; Datcu, A.; Amade, R.; Bertran-Serra, E.; Gyorgy, E.
Reduced graphene oxide/iron oxide nanohybrid flexible electrodes grown by laser-based technique for energy storage applications
(2018), *Ceramics International*, 44 (16), pp. 20409 - 20416

50. Abas, Sonia; Arroniz, Carlos; Molins, Elies; Escolano, Carmen
Access to the enantiopure pyrrolobenzodiazepine (PBD) dilactam nucleus via self-disproportionation of enantiomers
(2018), *Tetrahedron*, 74 (8), pp. 867 - 871

51. Rurali, Riccardo; Yu, Choongho; Zardo, Ilaria
thermoelectric properties of nanostructured materials Preface
(2018), *Journal of Physics D-Applied Physics*, 51 (43), 430301

52. Sanchez-Sala, Marta; Domingo, Concepcion; Ayllon, Jose A.
Direct Synthesis of Highly Dispersible PACMA-Capped TiO2 Nanoparticles and Its Adsorption Properties towards Pb(II)
(2018), *Journal of Nanomaterials*, 0 (0), 4731970

53. Lopez-Suarez, Miquel; Neri, Igor; Rurali, Riccardo
Interface driven thermal rectification in a graphene-bilayer graphene junction from nonequilibrium molecular dynamics
(2018), *Journal of Applied Physics*, 124 (22), 224301

54. Maritan, Lara; Piovesan, Rebecca; Dalconi, Maria Chiara; Rius, Jordi; Crespi, Anna; Vallcorba, Oriol; Casas, Lluis; Vidale, Massimo; Olivieri, Luca Maria
Looking Like Gold: Chlorite and Talc Transformation in the Golden Slip Ware Production (Swat Valley, North-Western Pakistan)
(2018), *Minerals*, 8 (5), 200

55. Vaccaro, P. O.; Alonso, M. I.; Garriga, M.; Gutierrez, J.; Pero, D.; Wagner, M. R.; Reparaz, J. S.; Sotomayor Torres, C. M.; Vidal, X.; Carter, E. A.; Lay, P. A.; Yoshimoto, M.; Goni, A. R.
Localized thinning for strain concentration in suspended germanium membranes and optical method for precise thickness measurement
(2018), *AIP Advances*, 8 (11), 115131

56. Maritan, Lara; Casas, Lluis; Crespi, Anna; Gravagna, Elisa; Rius, Jordi; Vallcorba, Oriol; Usai, Donatella
Synchrotron tts-mu XRD identification of secondary phases in ancient ceramics
(2018), *Heritage Science*, 6 (0), 74

57. Lopez-Suarez, Miquel; Neri, Igor
Micro electro-mechanical logic device at fundamental energy limit
(2018), *European Physical Journal B*, 91 (7), 135

58. Neri, Igor; Lopez-Suarez, Miquel
Thermodynamic reversible transformations in micro-electromechanical systems
(2018), *European Physical Journal B*, 91 (6), 102

59. Ichikawa, Rodrigo U.; Parra, Joao P. R. L. L.; Martins, Murillo L.; Yoshito, Walter K.; Saeki, Margarida J.; Turrillas, Xavier; Martinez, Luis G.
Size-Strain Analysis of Iron-Excess Mn-Zn Ferrite Nanoparticles Using Synchrotron Diffraction and Its Correlation with Magnetic Saturation and Isoelectric pH
(2018), *Journal of Nanoscience and Nanotechnology*, 18 (8), pp. 5697 - 5703
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60. Ichikawa, R. U.; Linhares, H. S. M. D.; Peral, I.; Baldochi, S. L.; Ranieri, I. M.; Turrillas, X.; Martinez, L. G.
Evidence for a core-shell configuration in Tb-doped KY3F10 nanoparticles using synchrotron x-ray line profile and pair distribution function analyses
(2018), *Materials Research Express*, 5 (1), 15006

61. Soledad Martinez, Maria; Bauza, Antonio; Caubet, Amparo; Garcia-Raso, Angel; Terron, Angel; Fiol, Juan J.; Molins, Elies; Barcelo-Oliver, Miquel; Frontera, Antonio
Cu(II)-N-6-Alkyladenine Complexes: Synthesis, X-ray Characterization and Magnetic Properties
(2018), *Magnetochemistry*, 4 (2), 24

62. Lopez-Suarez, Miguel; Royo, Miquel; Rurali, Riccardo
Interface-driven thermal rectification in nanoscale systems
(2018), *Physical Review Materials*, 2 (11), 113001

63. Ponrouch, Alexandre; Palacin, M. Rosa
Interphasing Multivalent Batteries
(2018), *Joule*, 2 (6), pp. 1028 - 1030

64. Ponrouch, A.; Palacin, M. R.
On the road toward calcium-based batteries
(2018), *Current Opinion In Electrochemistry*, 9 (0), pp. 1 - 7

65. Martinez, Lester; Benito, Monica; Mata, Ignasi; Soler, Lluis; Molins, Elies; Llorca, Jordi
Preparation and photocatalytic activity of Au/TiO2 lyogels for hydrogen production
(2018), *Sustainable Energy & Fuels*, 2 (10), pp. 2284 - 2295

66. Ruiz-Rosas, R.; Fuentes, I.; Vinas, C.; Teixidor, F.; Morallon, E.; Cazorla-Amoros, D.
Tailored metallacarboranes as mediators for boosting the stability of carbon-based aqueous supercapacitors
(2018), *Sustainable Energy & Fuels*, 2 (2), pp. 345 - 352

67. Cecchetto, Laura; Tesio, Alvaro Y.; Olivares-Marin, Mara; Guardiola Espinasa, Marc; Croce, Fausto; Tonti, Dino
Tailoring oxygen redox reactions in ionic liquid based Li/O-2 batteries by means of the Li+ dopant concentration
(2018), *Sustainable Energy & Fuels*, 2 (1), pp. 118 - 124

68. Westman, K.; Dugas, R.; Jankowski, P.; Wieczorek, W.; Gachot, G.; Morcrette, M.; Irisarri, E.; Ponrouch, A.; Palacin, M. R.; Tarascon, J. -M.; Johansson, P.
Diglyme Based Electrolytes for Sodium-Ion Batteries
(2018), *ACS Applied Energy Materials*, 1 (6), pp. 2671 - 2680

69. Meutzner, Falk; Zschornak, Matthias; Nentwich, Melanie; Monti, Damien; Leisegang, Tilmann
Electrodes: definitions and systematisation - a crystallographers view
(2018), *Physical Sciences Reviews*, 3 (10), UNSP 20180043

70. Colodrero, Rosario M. P.; Salcedo, Ines R.; Bazaga-Garcia, Montse; Barouda, Eleni; Papadaki, Maria; Papathanasiou, Konstantinos E.; Hernandez-Alonso, Daniel; Rius, Jordi; Aranda, Miguel A. G.; Losilla, Enrique R.; Olivera-Pastor, Pascual; Demadis, Konstan
High-Throughput Synthesis of Pillared-Layered Magnesium Tetraphosphonate Coordination Polymers: Framework Interconversions and Proton Conductivity Studies
(2018), *Inorganics*, 6 (3), 96

71. Gyorgy, Eniko; Paola Caricato, Anna
MAPLE Deposition of Nanomaterials
(2018), *Pulsed Laser Ablation: Advances and Applications in Nanoparticles and Nanostructuring Thin Films*, 0 (0), pp. 207 - 243

72. Swinkels, M. Y.; Campo, A.; Di Mario, L.; Martelli, F.; Rurali, R.; Zardo, I.
Thermal rectification
(2018), *2018 IEEE 18Th International Conference On Nanotechnology (IEEE-Nano)*, 0 (0)

RL2 - SUPERCONDUCTORS FOR POWER APPLICATIONS

73. Martinez-Esain, Jordi; Faraudo, Jordi; Puig, Teresa; Obradors, Xavier; Ros, Josep; Ricart, Susagna; Yanez, Ramon
Tunable Self-Assembly of YF3 Nanoparticles by Citrate -Mediated Ionic Bridges
(2018), *Journal of the American Chemical Society*, 140 (6), pp. 2127 - 2134
Also included in RL5

74. Martinez-Esain, Jordi; Puig, Teresa; Obradors, Xavier; Ros, Josep; Yanez, Ramon; Faraudo, Jordi; Ricart, Susagna
Faceted-Charge Patchy LnF(3) Nanocrystals with a Selective Solvent Interaction
(2018), *Angewandte Chemie-International Edition*, 57 (45), pp. 14747 - 14751
Also included in RL5

75. Palau, Anna; Fernandez-Rodriguez, Alejandro; Gonzalez-Rosillo, Juan Carlos; Granados, Xavier; Coll, Mariona; Bozzo, Bernat; Ortega-Hernandez, Rafael; Sune, Jordi; Mestres, Narcis; Obradors, Xavier; Puig, Teresa
Electrochemical Tuning of Metal Insulator Transition and Nonvolatile Resistive Switching in Superconducting Films
(2018), *ACS Applied Materials & Interfaces*, 10 (36), pp. 30522 - 30531

76. Zhang, Jin; Quintana, Alberto; Menendez, Enric; Coll, Mariona; Pellicer, Eva; Sort, Jordi
Electrodeposited Ni-Based Magnetic Mesoporous Films as Smart Surfaces for Atomic Layer Deposition: An All-Chemical Deposition Approach toward 3D Nanoengineered Composite Layers
(2018), *ACS Applied Materials & Interfaces*, 10 (17), pp. 14877 - 14885
Also included in RL1

77. Sotelo, Guilherme G.; Sass, Felipe; Carrera, Miquel; Lopez-Lopez, Josep; Granados, Xavier
Proposal of a Novel Design for Linear Superconducting Motor Using 2G Tape Stacks
(2018), *IEEE Transactions On Industrial Electronics*, 65 (9), pp. 7477 - 7484

78. Garzon-Manjon, Alba; Aranda-Ramos, Antonio; Melara-Benitez, Beatriz; Bensarghin, Ikram; Ros, Josep; Ricart, Susagna; Nogues, Carme
Simple Synthesis of Biocompatible Stable CeO2 Nanoparticles as Antioxidant Agents
(2018), *Bioconjugate Chemistry*, 29 (7), pp. 2325 - 2331
Also included in RL5

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Diminish electrostatic in piezoresponse force microscopy through longer or ultra-stiff tips
(2018), *Applied Surface Science*, 439 (0), pp. 577 - 582
Also included in RL3

80. Valles, F.; Palau, A.; Rouco, V.; Mundet, B.; Obradors, X.; Puig, T.
Angular flux creep contributions in YBa2Cu3O7-delta nanocomposites from electrical transport measurements
(2018), *Scientific Reports*, 8 (0), 5924

Valles, F.; Palau, A.; Rouco, V.; Mundet, B.; Obradors, X.; Puig, T.
Angular flux creep contributions in YBa2Cu3O7-delta nanocomposites from electrical transport measurements. *Author correction*
(2018), *Scientific Reports*, 8 (0), 7064

81. Martinez-Esain, Jordi; Ros, Josep; Faraudo, Jordi; Ricart, Susagna; Yanez, Ramon
Tailoring the Synthesis of LnF(3) (Ln = La-Lu and Y) Nanocrystals via Mechanistic Study of the Coprecipitation Method
(2018), *Langmuir*, 34 (22), pp. 6443 - 6453
Also included in RL5

82. Rasi, Silvia; Ricart, Susagna; Obradors, Xavier; Puig, Teresa; Roura, Pere; Farjas, Jordi
Thermal decomposition of yttrium propionate: film and powder
(2018), *Journal of Analytical and Applied Pyrolysis*, 133 (0), pp. 225 - 233

83. Li, Mu; Gazquez, Jaume; Borisevich, Albina; Mishra, Rohan; Flores, Katharine M.
Evaluation of microstructure and mechanical property variations in AlxCoCrFeNi high entropy alloys produced by a high-throughput laser deposition method
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