

Publicações Departamento de Física da Universidade de Aveiro (2012)

- [1] Alexeev M, Barbosa F, Birsá R, Bradamante F, Bressan A, Chiosso M, Ciliberti P, Dalla Torre S, Denisov O, Duic V, Finger M, Finger M, Fischer H, Giorgi M, Gobbo B, Gregori M, Herrmann F, Konigsmann K, Kramer D, Levorato S, Maggiora A, Martin A, Menon G, Mutter A, Nerling F, Novakova K, Novy J, Panzieri D, Polak J, Rocco E, Santos C, Sbrizzai G, Schiavon P, Schill C, Schopferer S, Slunicka M, Sozzi F, Steiger L, Sulc M, Takekawa S, Tessarotto F, Veloso JFCA, Wollny H (2012) Detection of single photons with ThickGEM-based counters. *Journal Of Instrumentation*, 7, C02014. <http://dx.doi.org/10.1088/1748-0221/7/02/C02014>
- [2] Almeida AJ, Pereira RN, Brandt MS (2012) Exchange-coupled dopants in Si quantum dots. *Applied Physics Letters*, 101, 93108. <http://dx.doi.org/10.1063/1.4748324>
- [3] Almeida AJ, Silva NA, Andre PS, Pinto AN (2012) Four-wave mixing: Photon statistics and the impact on a co-propagating quantum signal. *Optics Communications*, 285, 2956 - 2960. <http://dx.doi.org/10.1016/j.optcom.2012.02.008>
- [4] Alvarez I, Lorenzo MN, deCastro M (2012) Analysis of chlorophyll a concentration along the Galician coast: seasonal variability and trends. *Ices Journal Of Marine Science*, 69, 728 - 738. <http://dx.doi.org/10.1093/icesjms/fss045>
- [5] Alvarez I, Prego R, deCastro M, Varela M (2012) Galicia upwelling revisited: out-of-season events in the rias (1967-2009). *Ciencias Marinas*, 38, 143 - 159.
- [6] Amaral M, Carreira DJ, Fernandes AJS, Abreu CS, Oliveira FJ, Gomes JR, Silva RF (2012) A DLC/diamond bilayer approach for reducing the initial friction towards a high bearing capacity. *Wear*, 290, 18 - 24. <http://dx.doi.org/10.1016/j.wear.2012.05.026>
- [7] Amghouz Z, Garcia-Granda S, Garcia JR, Ferreira RAS, Mafra L, Carlos LD, Rocha J (2012) Series of Metal Organic Frameworks Assembled from Ln(III), Na(I), and Chiral Flexible-Achiral Rigid Dicarboxylates Exhibiting Tunable UV-vis-IR Light Emission. *Inorganic Chemistry*, 51, 1703 - 1716. <http://dx.doi.org/10.1021/ic202020z>
- [8] Andrade AL, Fabris JD, Ardisson JD, Valente MA, Ferreira JMF (2012) Effect of Tetramethylammonium Hydroxide on Nucleation, Surface Modification and Growth of Magnetic Nanoparticles. *Journal Of Nanomaterials*, 454759. <http://dx.doi.org/10.1155/2012/454759>
- [9] Andrade AL, Valente MA, Ferreira JMF, Fabris JD (2012) Preparation of size-controlled nanoparticles of magnetite. *Journal Of Magnetism And Magnetic Materials*, 324, 1753 - 1757. <http://dx.doi.org/10.1016/j.jmmm.2011.12.033>
- [10] Andrade RR, Malachias A, Kellerman G, Negreiros FR, Santos NM, Sobolev NA, Moreira MVB, de Oliveira AG, Gonzalez JC (2012) Experimental Evidence and Modified Growth Model of Alloying in In_xGa_{1-x}As Nanowires. *Journal Of Physical Chemistry C*, 116, 24777 - 24783. <http://dx.doi.org/10.1021/jp305031h>

- [11] Andre PS, Lima MJN, Rocha AM, Fernandes N, Granada M, Almeida T, Jin C, Rao L, Xin XJ (2012) RAMAN AMPLIFIED ACCESS NETWORKS WITH PUMP SIGNAL RECYCLING FOR ELECTRICAL POWER CONVERSION. *Microwave And Optical Technology Letters*, 54, 116 - 119. <http://dx.doi.org/10.1002/mop.26506>
- [12] Andre PS, Varum H, Antunes P, Ferreira L, Sousa MG (2012) Monitoring of the concrete curing process using plastic optical fibers. *Measurement*, 45, 556 - 560. <http://dx.doi.org/10.1016/j.measurement.2011.10.011>
- [13] Antunes P, Lima H, Varum H, Andre P (2012) Optical fiber sensors for static and dynamic health monitoring of civil engineering infrastructures: Abode wall case study. *Measurement*, 45, 1695 - 1705. <http://dx.doi.org/10.1016/j.measurement.2012.04.018>
- [14] Antunes P, Travanca R, Rodrigues H, Melo J, Jara J, Varum H, Andre P (2012) Dynamic Structural Health Monitoring of Slender Structures Using Optical Sensors. *Sensors*, 12, 6629 - 6644. <http://dx.doi.org/10.3390/s120506629>
- [15] Antunes P, Travanca R, Varum H, Andre P (2012) Dynamic monitoring and numerical modelling of communication towers with FBG based accelerometers. *Journal Of Constructional Steel Research*, 74, 58 - 62. <http://dx.doi.org/10.1016/j.jcsr.2012.02.006>
- [16] Antunes PFC, Marques CA, Varum H, Andre PS (2012) Biaxial Optical Accelerometer and High-Angle Inclinator With Temperature and Cross-Axis Insensitivity. *Ieee Sensors Journal*, 12, 2399 - 2406. <http://dx.doi.org/10.1109/JSEN.2012.2190763>
- [17] Arazi L, da Luz HN, Freytag D, Pitt M, Azevedo CDR, Rubin A, Cortesi M, Covita DS, Oliveira CAB, Oliveri E, Herbst R, Park S, Yu J, Chechik R, dos Santos JMF, Breidenbach M, Haller G, White A, Veloso JFCA, Breskin A (2012) THGEM-based detectors for sampling elements in DHCL: laboratory and beam evaluation. *Journal Of Instrumentation*, 7, C05011. <http://dx.doi.org/10.1088/1748-0221/7/05/C05011>
- [18] Babu NCR, Valente MA, Rao NN, Graca MPF, Raju GN, Piasecki M, Kityk IV, Veeraiah N (2012) Low temperature dielectric dispersion and electrical conductivity studies on Fe₂O₃ mixed lithium yttrium silicate glasses. *Journal Of Non-Crystalline Solids*, 358, 3175 - 3186. <http://dx.doi.org/10.1016/j.jnoncrysol.2012.09.011>
- [19] Bai X, Pucci A, Freitas VT, Ferreira RAS, Pinna N (2012) One-Step Synthesis and Optical Properties of Benzoate- and Biphenolate-Capped ZrO₂ Nanoparticles. *Advanced Functional Materials*, 22, 4275 - 4283. <http://dx.doi.org/10.1002/adfm.201200759>
- [20] Baxter GJ, Blythe RA, McKane AJ (2012) Fast fixation with a generic network structure. *Physical Review E*, 86, 31142. <http://dx.doi.org/10.1103/PhysRevE.86.031142>
- [21] Belo JH, Amaral JS, Pereira AM, Amaral VS, Araujo JP (2012) On the Curie temperature dependency of the magnetocaloric effect. *Applied Physics Letters*, 100, 242407. <http://dx.doi.org/10.1063/1.4726110>

- [22] Belo JH, Amaral JS, Pereira AM, Amaral VS, Araujo JP (2012) On the Curie temperature dependency of the magnetocaloric effect (vol 100, 242407, 2012). *Applied Physics Letters*, 101, 79904. <http://dx.doi.org/10.1063/1.4744761>
- [23] Belo JH, Pereira AM, Araujo JP, de la Cruz C, dos Santos AM, Goncalves JN, Amaral VS, Morellon L, Ibarra MR, Algarabel PA, Magen C (2012) Tailoring the magnetism of Tb₅Si₂Ge₂ compounds by La substitution. *Physical Review B*, 86, 14403. <http://dx.doi.org/10.1103/PhysRevB.86.014403>
- [24] Ben Amor N, Bejar M, Dhahri E, Bekri M, Valente MA, Hlil EK (2012) Study of the physical properties of La_{2-x}Er_xTi₂O₇ (0 ≤ x ≤ 0.075) compounds. *European Physical Journal-Applied Physics*, 59, 10601. <http://dx.doi.org/10.1051/epjap/2012120142>
- [25] Ben Amor N, Bejar M, Hussein M, Dhahri E, Valente MA, Hlil EK (2012) Synthesis, Magnetic Properties, Magnetic Entropy and Arrot Plot of Antiferromagnetic Frustrated Er₂Ti₂O₇ Compound. *Journal Of Superconductivity And Novel Magnetism*, 25, 1035 - 1042. <http://dx.doi.org/10.1007/s10948-011-1344-9>
- [26] Bilro L, Alberto N, Pinto JL, Nogueira R (2012) Optical Sensors Based on Plastic Fibers. *Sensors*, 12, 12184 - 12207. <http://dx.doi.org/10.3390/s120912184>
- [27] Bonekamp NA, Sampaio P, de Abreu FV, Luers GH, Schrader M (2012) Transient Complex Interactions of Mammalian Peroxisomes Without Exchange of Matrix or Membrane Marker Proteins. *Traffic*, 13, 960 - 978. <http://dx.doi.org/10.1111/j.1600-0854.2012.01356.x>
- [28] Bonifacio V (2012) The Library of an Amateur Azorean Astronomer in the First Decade of the 20th Century. *Agora-Estudos Classicos Em Debate*, 14.1, 293 - 314.
- [29] Bottaini CE, Silva ALM, Covita DS, Moutinho LM, Veloso JFCA (2012) Energy dispersive X-ray fluorescence analysis of archeological metal artifacts from the Final Bronze Age. *X-Ray Spectrometry*, 41, 144 - 149. <http://dx.doi.org/10.1002/xrs.2368>
- [30] Boue G, Figueira P, Correia ACM, Santos NC (2012) Orbital migration induced by anisotropic evaporation Can hot Jupiters form hot Neptunes?. *Astronomy & Astrophysics*, 537, L3. <http://dx.doi.org/10.1051/0004-6361/201118084>
- [31] Brites CDS, Freitas VT, Ferreira RAS, Millan A, Palacio F, Carlos LD (2012) Metal-Free Highly Luminescent Silica Nanoparticles. *Langmuir*, 28, 8190 - 8196. <http://dx.doi.org/10.1021/la300288j>
- [32] Brites CDS, Lima PP, Silva NJO, Millan A, Amaral VS, Palacio F, Carlos LD (2012) Thermometry at the nanoscale. *Nanoscale*, 4, 4799 - 4829. <http://dx.doi.org/10.1039/c2nr30663h>
- [33] Camps I, Coutinho J, Mir M, da Cunha AF, Rayson MJ, Briddon PR (2012) Elastic and optical properties of Cu₂ZnSn(SexS_{1-x})₄ alloys: density functional calculations. *Semiconductor Science And Technology*, 27, 115001. <http://dx.doi.org/10.1088/0268-1242/27/11/115001>

- [34] Cardoso V, Gualtieri L, Herdeiro C, Sperhake U, Chesler PM, Lehner L, Park SC, Reall HS, Sopuerta CF, Alic D, Dias OJC, Emparan R, Ferrari V, Giddings SB, Godazgar M, Gregory R, Hubeny VE, Ishibashi A, Landsberg G, Lousto CO, Mateos D, Moeller V, Okawa H, Pani P, Parker MA, Pretorius F, Shibata M, Sotani H, Wiseman T, Witek H, Yunes N, Zilhao M (2012) NR/HEP: roadmap for the future. *Classical And Quantum Gravity*, 29, 244001. <http://dx.doi.org/10.1088/0264-9381/29/24/244001>
- [35] Carramate LFND, Oliveira CAB, Silva ALM, Azevedo CDR, Correia PMM, Da Silva AM, Veloso JFCA (2012) Computed Tomography System Using a New MPGD for Small Animal Imaging with Energy Resolving Capability. *2012 Ieee Nuclear Science Symposium And Medical Imaging Conference Record (Nss/Mic)*, 3664 - 3666.
- [36] Carramate LFND, Oliveira CAB, Silva ALM, da Silva AM, dos Santos JMF, Veloso JFCA (2012) Multi-slice quantum Computed Tomography system using a MHSP. *Journal Of Instrumentation*, 7, C01106. <http://dx.doi.org/10.1088/1748-0221/7/01/C01106>
- [37] Carvalho A, Oberg S, Barroso M, Rayson MJ, Briddon P (2012) P-doping of Si nanoparticles: The effect of oxidation. *Physica Status Solidi A-Applications And Materials Science*, 209, 1847 - 1850. <http://dx.doi.org/10.1002/pssa.201200149>
- [38] Carvalho A, Oberg S, Rayson MJ, Briddon PR (2012) Electronic properties, doping, and defects in chlorinated silicon nanocrystals. *Physical Review B*, 86, 45308. <http://dx.doi.org/10.1103/PhysRevB.86.045308>
- [39] Carvalho A, Rayson MJ, Briddon PR (2012) Effect of Oxidation on the Doping of Silicon Nanocrystals with Group III and Group V Elements. *Journal Of Physical Chemistry C*, 116, 8243 - 8250. <http://dx.doi.org/10.1021/jp300712v>
- [40] Carvalho A, Santos P, Coutinho J, Jones R, Rayson MJ, Briddon PR (2012) Light induced degradation in B doped Cz-Si solar cells. *Physica Status Solidi A-Applications And Materials Science*, 209, 1894 - 1897. <http://dx.doi.org/10.1002/pssa.201200196>
- [41] Carvalho D, Rocha A, Gomez-Gesteira M (2012) Ocean surface wind simulation forced by different reanalyses: Comparison with observed data along the Iberian Peninsula coast. *Ocean Modelling*, 56, 31 - 42. <http://dx.doi.org/10.1016/j.ocemod.2012.08.002>
- [42] Carvalho D, Rocha A, Gomez-Gesteira M, Santos C (2012) A sensitivity study of the WRF model in wind simulation for an area of high wind energy. *Environmental Modelling & Software*, 33, 23 - 34. <http://dx.doi.org/10.1016/j.envsoft.2012.01.019>
- [43] Carvalho MI, Facao M (2012) Evolution of cubic-quintic complex Ginzburg-Landau erupting solitons under the effect of third-order dispersion and intrapulse Raman scattering. *Physics Letters A*, 376, 950 - 956. <http://dx.doi.org/10.1016/j.physleta.2012.01.036>
- [44] Carvalho RG, Figueiredo FM, Silva RF, Costa FM (2012) Ionic conductivity of eutectic mullite-zirconia fibres. *2012 International Symposium On Applications Of Ferroelectrics Held Jointly With 11Th Ieee Ecapd And Ieee Pfm (Isaf/Ecapd/Pfm)*.

- [45] Castanheira JM, Peevey TR, Marques CAF, Olsen MA (2012) Relationships between Brewer-Dobson circulation, double tropopauses, ozone and stratospheric water vapour. *Atmospheric Chemistry And Physics*, 12, 10195 - 10208. <http://dx.doi.org/10.5194/acp-12-10195-2012>
- [46] Castro IF, Soares AJ, Moutinho LM, Veloso JFCA (2012) Development of a light readout based on silicon photomultipliers for a wavelength-shifting fibre gamma camera. *Nuclear Instruments & Methods In Physics Research Section A-Accelerators Spectrometers Detectors And Associated Equipment*, 695, 298 - 302. <http://dx.doi.org/10.1016/j.nima.2011.11.062>
- [47] Castro IF, Soares AJ, Moutinho LM, Veloso JFCA (2012) Small prototype gamma camera based on wavelength-shifting fibres. *Journal Of Instrumentation*, 7, C01043. <http://dx.doi.org/10.1088/1748-0221/7/01/C01043>
- [48] Chattopadhyay T, Reis C, Andre P, Teixeira A (2012) Theoretical analysis of all-optical clocked D flip-flop using a single SOA assisted symmetric MZI. *Optics Communications*, 285, 2266 - 2275. <http://dx.doi.org/10.1016/j.optcom.2011.12.103>
- [49] Chelebaeva E, Long J, Larionova J, Ferreira RAS, Carlos LD, Paz FAA, Gomes JBR, Trifonov A, Guerin C, Guari Y (2012) Bifunctional Mixed-Lanthanide Cyano-Bridged Coordination Polymers $\text{Ln}(\text{O}.5)\text{Ln}(\text{O}.5)'(\text{H}_2\text{O})(5)[\text{W}(\text{CN})(8)]$ ($\text{Ln}/\text{Ln}' = \text{Eu}^{3+}/\text{Tb}^{3+}$, $\text{Eu}^{3+}/\text{Gd}^{3+}$, $\text{Tb}^{3+}/\text{Sm}^{3+}$). *Inorganic Chemistry*, 51, 9005 - 9016. <http://dx.doi.org/10.1021/ic301144j>
- [50] Coelho FS, Herdeiro C, Hirano S, Sato Y (2012) Scalar graviton in n-DBI gravity. *Physical Review D*, 86, 64009. <http://dx.doi.org/10.1103/PhysRevD.86.064009>
- [51] Coelho FS, Herdeiro C, Sampaio MOP (2012) Radiation from a D-Dimensional Collision of Shock Waves: A Remarkably Simple Fit Formula. *Physical Review Letters*, 108, 181102. <http://dx.doi.org/10.1103/PhysRevLett.108.181102>
- [52] Correia ACM, Boue G, Laskar J (2012) PUMPING THE ECCENTRICITY OF EXOPLANETS BY TIDAL EFFECT. *Astrophysical Journal Letters*, 744, L23. <http://dx.doi.org/10.1088/2041-8205/744/2/L23>
- [53] Correia ACM, Laskar J (2012) IMPACT CRATERING ON MERCURY: CONSEQUENCES FOR THE SPIN EVOLUTION. *Astrophysical Journal Letters*, 751, L43. <http://dx.doi.org/10.1088/2041-8205/751/2/L43>
- [54] Correia SFH, Antunes P, Pecoraro E, Lima PP, Varum H, Carlos LD, Ferreira RAS, Andre PS (2012) Optical Fiber Relative Humidity Sensor Based on a FBG with a Di-Ureasil Coating. *Sensors*, 12, 8847 - 8860. <http://dx.doi.org/10.3390/s120708847>
- [55] Costa LF, Herdeiro C, Natario J, Zilhao M (2012) Mathisson's helical motions for a spinning particle: Are they unphysical?. *Physical Review D*, 85, 24001. <http://dx.doi.org/10.1103/PhysRevD.85.024001>
- [56] Coutinho J, Markevich VP, Peaker AR, Hamilton B, Lastovskii SB, Murin LI, Svensson BJ, Rayson MJ, Briddon PR (2012) Electronic and dynamical properties of the silicon trivacancy. *Physical Review B*, 86, 174101. <http://dx.doi.org/10.1103/PhysRevB.86.174101>

- [57] Crokidakis N, Forgerini FL (2012) Competition Among Reputations in the 2D Sznajd Model: Spontaneous Emergence of Democratic States. *Brazilian Journal Of Physics*, 42, 125 - 131. <http://dx.doi.org/10.1007/s13538-011-0055-9>
- [58] Dashti-Naserabadi H, Azimi-Tafreshi N, Moghimi-Araghi S (2012) Statistics of toppling wave boundaries in deterministic and stochastic sandpile models. *Journal Of Physics A-Mathematical And Theoretical*, 45, 45001. <http://dx.doi.org/10.1088/1751-8113/45/4/045001>
- [59] De K, Das S, Roy A, Amaral VS, Majumder S, Giri S, Mahapatra PK (2012) Magnetic and electrical transport properties in the self-doped manganite $\text{La}_{0.9}\text{Mn}_{0.9}\text{M}_{0.1}\text{O}_3$ (M=Mn, Zn and Ti). *Physica B-Condensed Matter*, 407, 2442 - 2446. <http://dx.doi.org/10.1016/j.physb.2012.03.043>
- [60] De K, Das S, Roy A, Dhak P, Willinger M, Amaral JS, Amaral VS, Giri S, Majumder S, Silva CJR, Gomes MJM, Mahapatra PK (2012) Enhanced ferromagnetism and glassy state in phase separated $\text{La}_{0.95}\text{Sr}_{0.05}\text{MnO}_3+\delta$. *Journal Of Applied Physics*, 112, 103907. <http://dx.doi.org/10.1063/1.4763460>
- [61] Debasu ML, Ananias D, Pinho SLC, Geraldies CFGC, Carlos LD, Rocha J (2012) (Gd,Yb,Tb) PO_4 up-conversion nanocrystals for bimodal luminescence-MR imaging. *Nanoscale*, 4, 5154 - 5162. <http://dx.doi.org/10.1039/c2nr31226c>
- [62] Delisle JB, Laskar J, Correia ACM, Boue G (2012) Dissipation in planar resonant planetary systems. *Astronomy & Astrophysics*, 546, A71. <http://dx.doi.org/10.1051/0004-6361/201220001>
- [63] Dias RG, del Rio L, Goltsev AV (2012) Interplay between potential and spin-flip scattering in systems with depleted density of states. *Physical Review B*, 86, 235120. <http://dx.doi.org/10.1103/PhysRevB.86.235120>
- [64] Domingues CP, Nolasco R, Dubert J, Queiroga H (2012) Model-Derived Dispersal Pathways from Multiple Source Populations Explain Variability of Invertebrate Larval Supply. *Plos One*, 7, e35794. <http://dx.doi.org/10.1371/journal.pone.0035794>
- [65] Domingues F, Frias AR, Antunes P, Sousa AOP, Ferreira RAS, Andre PS (2012) Observation of fuse effect discharge zone nonlinear velocity regime in erbium-doped fibres. *Electronics Letters*, 48, 1278. <http://dx.doi.org/10.1049/e1.2012.2917>
- [66] El Hasnaoui M, Belattar J, Achour ME, Costa LC, Lahjomri F (2012) Electrical transport properties of CB/epoxy polymer composites. *Optoelectronics And Advanced Materials-Rapid Communications*, 6, 610 - 613.
- [67] El Hasnaoui M, Triki A, Graca MPF, Achour ME, Costa LC, Arous M (2012) Electrical conductivity studies on carbon black loaded ethylene butylacrylate polymer composites. *Journal Of Non-Crystalline Solids*, 358, 2810 - 2815. <http://dx.doi.org/10.1016/j.jnoncrysol.2012.07.008>

- [68] Ershova O, da Costa EV, Fernandes AJS, Domingues MR, Evtuguin DV, Sixta H (2012) Effect of urea on cellulose degradation under conditions of alkaline pulping. *Cellulose*, 19, 2195 - 2204. <http://dx.doi.org/10.1007/s10570-012-9791-4>
- [69] Estreicher SK, Carvalho A (2012) The Cu-PL defect and the Cu_5Cu_3 complex. *Physica B-Condensed Matter*, 407, 2967 - 2969. <http://dx.doi.org/10.1016/j.physb.2011.08.002>
- [70] Faria FAC, Evtuguin DV, Rudnitskaya A, Gomes MTSR, Oliveira JABP, Graca MPF, Costa LC (2012) Lignin-based polyurethane doped with carbon nanotubes for sensor applications. *Polymer International*, 61, 788 - 794. <http://dx.doi.org/10.1002/pi.4140>
- [71] Ferdov S, Ferreira RAS, Lin Z, Wu ZY (2012) Mild hydrothermal synthesis, crystal structure, photoluminescence properties and emission quantum yield of a new zirconium germanate with garnet-type structure. *Journal Of Solid State Chemistry*, 190, 18 - 23. <http://dx.doi.org/10.1016/j.jssc.2012.01.064>
- [72] Fernandes PA, Sartori AF, Salome PMP, Malaquias J, da Cunha AF, Graca MPF, Gonzalez JC (2012) Admittance spectroscopy of $\text{Cu}_2\text{ZnSnS}_4$ based thin film solar cells. *Applied Physics Letters*, 100, 233504. <http://dx.doi.org/10.1063/1.4726042>
- [73] Ferrari JL, Lima KD, Pecoraro E, Ferreira RAS, Carlos LD, Goncalves RR (2012) Color tunability of intense upconversion emission from $\text{Er}^{3+}\text{-Yb}^{3+}$ co-doped $\text{SiO}_2\text{-Ta}_2\text{O}_5$ glass ceramic planar waveguides. *Journal Of Materials Chemistry*, 22, 9901 - 9908. <http://dx.doi.org/10.1039/c2jm30456b>
- [74] Ferreira AL, Lipowska D, Lipowski A (2012) Statistical mechanics model of angiogenic tumor growth. *Physical Review E*, 85, 10901. <http://dx.doi.org/10.1103/PhysRevE.85.010901>
- [75] Ferreira L, Antunes P, Varum H, Andre P (2012) Optical monitoring of curing process of concrete with plastic optical fibers. *22Nd International Conference On Optical Fiber Sensors, Pts 1-3*, 8421, 8421BC. <http://dx.doi.org/10.1117/12.974995>
- [76] Ferreira LF, Antunes P, Domingues F, Silva PA, Andre PS (2012) Monitoring of sea bed level changes in nearshore regions using fiber optic sensors. *Measurement*, 45, 1527 - 1533. <http://dx.doi.org/10.1016/j.measurement.2012.02.026>
- [77] Ferreira NM, Costa FM, Nogueira RN, Graca MPF (2012) Lithium niobate bulk crystallization promoted by CO_2 laser radiation. *Applied Surface Science*, 258, 9457 - 9460. <http://dx.doi.org/10.1016/j.apsusc.2011.08.050>
- [78] Ferreira NM, Rasekh S, Costa FM, Madre MA, Sotelo A, Diez JC, Torres MA (2012) New method to improve the grain alignment and performance of thermoelectric ceramics. *Materials Letters*, 83, 144 - 147. <http://dx.doi.org/10.1016/j.matlet.2012.05.131>
- [79] Ferreira RAS, Nolasco M, Roma AC, Longo RL, Malta OL, Carlos LD (2012) Dependence of the Lifetime upon the Excitation Energy and Intramolecular Energy Transfer Rates: The 5D_0 Eu^{3+} Emission Case. *Chemistry-A European Journal*, 18, 12130 - 12139. <http://dx.doi.org/10.1002/chem.201201736>

- [80] Fialho M, Magalhaes S, Alves LC, Marques C, Maalej R, Monteiro T, Lorenz K, Alves E (2012) AlN content influence on the properties of Al_xGa_{1-x}N doped with Pr ions. *Nuclear Instruments & Methods In Physics Research Section B-Beam Interactions With Materials And Atoms*, 273, 149 - 152. <http://dx.doi.org/10.1016/j.nimb.2011.07.062>
- [81] Filonovich SA, Aguas H, Busani T, Vicente A, Araujo A, Gaspar D, Vilarigues M, Leitao J, Fortunato E, Martins R (2012) Hydrogen plasma treatment of very thin p-type nanocrystalline Si films grown by RF-PECVD in the presence of B(CH₃)₃. *Science And Technology Of Advanced Materials*, 13, 45004. <http://dx.doi.org/10.1088/1468-6996/13/4/045004>
- [82] Fortes CJ, Ferreira O, Silva PA, Moura T, Capitao R, Amante L, Voutsoukas M, Bezerra M (2012) Joint use of data and modeling in coastal wave transformation. *Journal Of Coastal Conservation*, 16, 461 - 472. <http://dx.doi.org/10.1007/s11852-012-0187-2>
- [83] Freitas VT, Lima PP, Bermudez VD, Ferreira RAS, Carlos LD (2012) Boosting the Emission Quantum Yield of Urea Cross-Linked Tripodal Poly(oxypopylene)/Siloxane Hybrids Through the Variation of Catalyst Concentration. *European Journal Of Inorganic Chemistry*, 5390 - 5395. <http://dx.doi.org/10.1002/ejic.201200823>
- [84] Gao P, Li YH, Liu HD, Pinto J, Jiang XF, Yang G (2012) Improved High Rate Capacity and Lithium Diffusion Ability of LiNi_{1/3}Co_{1/3}Mn_{1/3}O₂ with Ordered Crystal Structure. *Journal Of The Electrochemical Society*, 159, A506 - A513. <http://dx.doi.org/10.1149/2.010205jes>
- [85] Giuppone CA, Benitez-Llambay P, Beauge C (2012) Origin and detectability of co-orbital planets from radial velocity data. *Monthly Notices Of The Royal Astronomical Society*, 421, 356 - 368. <http://dx.doi.org/10.1111/j.1365-2966.2011.20310.x>
- [86] Giuppone CA, Morais MHM, Boue G, Correia ACM (2012) Dynamical analysis and constraints for the HD 196885 system. *Astronomy & Astrophysics*, 541, A151. <http://dx.doi.org/10.1051/0004-6361/201118356>
- [87] Goltsev AV, Dorogovtsev SN, Oliveira JG, Mendes JFF (2012) Localization and Spreading of Diseases in Complex Networks. *Physical Review Letters*, 109, 128702. <http://dx.doi.org/10.1103/PhysRevLett.109.128702>
- [88] Goncalves JN, Stroppa A, Correia JG, Butz T, Picozzi S, Fenta AS, Amaral VS (2012) Ab initio study of the relation between electric polarization and electric field gradients in ferroelectrics. *Physical Review B*, 86, 35145. <http://dx.doi.org/10.1103/PhysRevB.86.035145>
- [89] Gotta D, Amaro FD, Anagnostopoulos DF, Buhler P, Gorke H, Covita DS, Fuhrmann H, Gruber A, Hennebach M, Hirtl A, Ishiwatari T, Indelicato P, Le Bigot EO, Marton J, Nekipelov M, dos Santos JMF, Schlessler S, Schmid P, Simons LM, Strauch T, Trassinelli M, Veloso JFCA, Zmeskal J (2012) Pionic hydrogen and deuterium. *Hyperfine Interactions*, 209, 57 - 62. <http://dx.doi.org/10.1007/s10751-011-0524-0>
- [90] Graca MPF, Nico C, Peres M, Valente MA, Monteiro T (2012) Study of the Optical and Dielectric Properties of TiO₂ Nanocrystals Prepared by the Pechini Method. *Journal Of Nanoscience And Nanotechnology*, 12, 8600 - 8606. <http://dx.doi.org/10.1166/jnn.2012.6819>

- [91] Graca MPF, Prezas PR, Costa MM, Valente MA (2012) Structural and dielectric characterization of LiNbO₃ nano-size powders obtained by Pechini method. *Journal Of Sol-Gel Science And Technology*, 64, 78 - 85. <http://dx.doi.org/10.1007/s10971-012-2829-0>
- [92] Graca MPF, Rudnitskaya A, Faria FAC, Evtuguin DV, Gomes MTSR, Oliveira JABP, Costa LC (2012) Electrochemical impedance study of the lignin-derived conducting polymer. *Electrochimica Acta*, 76, 69 - 76. <http://dx.doi.org/10.1016/j.electacta.2012.04.155>
- [93] Graffion J, Cattoen X, Freitas VT, Ferreira RAS, Man MWC, Carlos LD (2012) Engineering of metal-free bipyridine-based bridged silsesquioxanes for sustainable solid-state lighting. *Journal Of Materials Chemistry*, 22, 6711 - 6715. <http://dx.doi.org/10.1039/c2jm15225h>
- [94] Graffion J, Cojocariu AM, Cattoen X, Ferreira RAS, Fernandes VR, Andre PS, Carlos LD, Man MWC, Bartlett JR (2012) Luminescent coatings from bipyridine-based bridged silsesquioxanes containing Eu³⁺ and Tb³⁺ salts. *Journal Of Materials Chemistry*, 22, 13279 - 13285. <http://dx.doi.org/10.1039/c2jm31289a>
- [95] Granadeiro CM, Cruz SMA, Goncalves G, Marques PAAP, Costa PMFJ, Ferreira RAS, Carlos LD, Nogueira HIS (2012) Photoluminescent bimetallic-3-hydroxypicolinate/graphene oxide nanocomposite. *Rsc Advances*, 2, 9443 - 9447. <http://dx.doi.org/10.1039/c2ra21388e>
- [96] Guo L, Fu LS, Ferreira RAS, Carlos LD, Yan B (2012) Photofunctional hybrid silica microspheres covalently functionalized with metalloporphyrins. *Journal Of Solid State Chemistry*, 194, 9 - 14. <http://dx.doi.org/10.1016/j.jssc.2012.07.028>
- [97] Han YF, Fu LS, Mafra L, Shi FN (2012) Hydrothermal synthesis, crystal structures and photoluminescence properties of mixed europium-yttrium organic frameworks. *Journal Of Solid State Chemistry*, 186, 165 - 170. <http://dx.doi.org/10.1016/j.jssc.2011.12.007>
- [98] Hawaldar R, Merino P, Correia MR, Bdikin I, Gracio J, Mendez J, Martin-Gago JA, Singh MK (2012) Large-area high-throughput synthesis of monolayer graphene sheet by Hot Filament Thermal Chemical Vapor Deposition. *Scientific Reports*, 2, 682. <http://dx.doi.org/10.1038/srep00682>
- [99] Herdeiro C, Hirano S (2012) Scale invariance and a gravitational model with non-eternal inflation. *Journal Of Cosmology And Astroparticle Physics*, 31. <http://dx.doi.org/10.1088/1475-7516/2012/05/031>
- [100] Herdeiro C, Hirano S, Sato Y (2012) n-DBI gravity. *Physical Review D*, 84, 124048. <http://dx.doi.org/10.1103/PhysRevD.84.124048>
- [101] Herdeiro C, Sampaio MOP, Wang MJ (2012) Hawking radiation for a Proca field in D dimensions. *Physical Review D*, 85, 24005. <http://dx.doi.org/10.1103/PhysRevD.85.024005>
- [102] Kakazey M, Vlasova M, Aguilar PAM, Coeto BS, Tapia RG, Sobolev NA (2012) Reaction processes in a ZnO+1%Gd₂O₃ powder mixture during mechanical and laser processing. *Materials Science And Engineering B-Advanced Functional Solid-State Materials*, 177, 1417 - 1422. <http://dx.doi.org/10.1016/j.mseb.2012.01.008>

- [103] Khodorov A, Rolo AG, Hlil EK, de Campos JA, Karzazi O, Levichev S, Correia MR, Chahboun A, Gomes MJM (2012) Effect of oxygen pressure on the structural and magnetic properties of thin Zn_{0.98}Mn_{0.02}O films. *European Physical Journal-Applied Physics*, 57, 10301. <http://dx.doi.org/10.1051/epjap/2011110380>
- [104] Khomchenko VA, Troyanchuk IO, Maria TMR, Karpinsky DV, Das S, Amaral VS, Paixao JA (2012) Mn doping-induced structural and magnetic transformations in the antiferroelectric phase of the Bi_{1-x}NdxFeO₃ perovskites. *Journal Of Applied Physics*, 112, 64105. <http://dx.doi.org/10.1063/1.4752277>
- [105] Krishna R, Titus E, Costa LC, Menezes JCJMS, Correia MRP, Pinto S, Ventura J, Araujo JP, Cavaleiro JAS, Gracio JJA (2012) Facile synthesis of hydrogenated reduced graphene oxide via hydrogen spillover mechanism. *Journal Of Materials Chemistry*, 22, 10457 - 10459. <http://dx.doi.org/10.1039/c2jm30945a>
- [106] Krishnapuram P, Jakka SK, Thummala C, Lalapeta RM (2012) Photoluminescence characteristics of Eu₂O₃ doped calcium fluoroborate glasses. *Journal Of Molecular Structure*, 1028, 170 - 175. <http://dx.doi.org/10.1016/j.molstruc.2012.06.037>
- [107] Kumar JS, Pavani K, Chengaiah T, Graca MPF, Soares MJ, Moorthy LR (2012) Er³⁺ doped calcium fluoroborate glasses for fiber amplifiers. *2012 International Symposium On Applications Of Ferroelectrics Held Jointly With 11Th Ieee Ecapd And Ieee Pfm (Isaf/Ecapd/Pfm)*.
- [108] Laskar J, Boue G, Correia ACM (2012) Tidal dissipation in multi-planet systems and constraints on orbit fitting. *Astronomy & Astrophysics*, 538, A105. <http://dx.doi.org/10.1051/0004-6361/201116643>
- [109] Latas SCV, Ferreira MFS (2012) Emerging fixed-shape solutions from a pulsating chaotic soliton. *Optics Letters*, 37, 3897 - 3899.
- [110] Latas SCV, Ferreira MFS (2012) Propagation of pulsating, erupting, and creeping solitons in the presence of higher order effects. *Nonlinear Optics And Applications Vi*, 8434, 84340L. <http://dx.doi.org/10.1117/12.922065>
- [111] Leitao C, Bilro L, Alberto N, Antunes P, Lima H, Andre PS, Nogueira R, Pinto JL (2012) Development of a FBG probe for non-invasive carotid pulse waveform assessment. *Biophotonics: Photonic Solutions For Better Health Care Iii*, 8427, 84270J. <http://dx.doi.org/10.1117/12.923560>
- [112] Leitao C, Lima H, Pinto JL, Bilro L, Antunes P, Marques C, Prata J, Andre P, Nogueira R (2012) Development and characterization of new sensors for hemodynamic evaluation: fibre Bragg sensor for arterial pulse waveform acquisition. *2012 Ieee 2Nd Portuguese Meeting In Bioengineering (Enbeng)*.
- [113] Leones R, Sentanin F, Rodrigues LC, Ferreira RAS, Marrucho IM, Esperanca JMSS, Pawlicka A, Carlos LD, Silva MM (2012) Novel polymer electrolytes based on gelatin and ionic liquids. *Optical Materials*, 35, 187 - 195. <http://dx.doi.org/10.1016/j.optmat.2012.07.027>

- [114] Lima E, Raphael E, Sentanin F, Rodrigues LC, Ferreira RAS, Carlos LD, Silva MM, Pawlicka A (2012) Photo luminescent polymer electrolyte based on agar and containing europium picrate for electrochemical devices. *Materials Science And Engineering B-Advanced Functional Solid-State Materials*, 177, 488 - 493. <http://dx.doi.org/10.1016/j.mseb.2012.02.004>
- [115] Lima MMRA, Monteiro RCC, Graca MPF, da Silva MGF (2012) Structural, electrical and thermal properties of borosilicate glass-alumina composites. *Journal Of Alloys And Compounds*, 538, 66 - 72. <http://dx.doi.org/10.1016/j.jallcom.2012.05.024>
- [116] Lindo AM, Faria BF, de Abreu FV (2012) Tunable kinetic proofreading in a model with molecular frustration. *Theory In Biosciences*, 131, 77 - 84. <http://dx.doi.org/10.1007/s12064-011-0134-z>
- [117] Lipowski A, Ferreira AL, Wendykier J (2012) Critical behavior of a tumor growth model: Directed percolation with a mean-field flavor. *Physical Review E*, 86, 41138. <http://dx.doi.org/10.1103/PhysRevE.86.041138>
- [118] Liu CB, Ferreira RAS, Paz FAA, Cadiau A, Carlos LD, Fu LS, Rocha J, Shi FN (2012) Highly emissive Zn-Ln metal-organic frameworks with an unusual 3D inorganic subnetwork. *Chemical Communications*, 48, 7964 - 7966. <http://dx.doi.org/10.1039/c2cc33223j>
- [119] Liu HD, Yang G, Zhang XF, Gao P, Wang L, Fang JH, Pinto J, Jiang XF (2012) Kinetics of conventional carbon coated-Li₃V₂(PO₄)(3) and nanocomposite Li₃V₂(PO₄)(3)/graphene as cathode materials for lithium ion batteries. *Journal Of Materials Chemistry*, 22, 11039 - 11047. <http://dx.doi.org/10.1039/c2jm31004j>
- [120] Long J, Vallat R, Ferreira RAS, Carlos LD, Paz FAA, Guari Y, Larionova J (2012) A bifunctional luminescent single-ion magnet: towards correlation between luminescence studies and magnetic slow relaxation processes. *Chemical Communications*, 48, 9974 - 9976. <http://dx.doi.org/10.1039/c2cc35321k>
- [121] Loureiro PEG, Domingues MRM, Fernandes AJS, Carvalho MGVS, Evtuguin DV (2012) Discriminating the brightness stability of cellulosic pulp in relation to the final bleaching stage. *Carbohydrate Polymers*, 88, 726 - 733. <http://dx.doi.org/10.1016/j.carbpol.2012.01.024>
- [122] Magalhaes S, Barradas NP, Alves E, Watson IM, Lorenz K (2012) High precision determination of the InN content of Al_{1-x}In_xN thin films by Rutherford backscattering spectrometry. *Nuclear Instruments & Methods In Physics Research Section B-Beam Interactions With Materials And Atoms*, 273, 105 - 108. <http://dx.doi.org/10.1016/j.nimb.2011.07.051>
- [123] Malaquias I (2012) The Geography of Knowledge in Antonio Ribeiro Sanches through his Library Inventory. *Agora-Estudos Classicos Em Debate*, 14.1, 203 - 226.
- [124] Markevich VP, Peaker AR, Hamilton B, Lastovskii SB, Murin LI, Coutinho J, Markevich AV, Rayson MJ, Briddon PR, Svensson BG (2012) Reconfigurations and diffusion of trivacancy in silicon. *Physica B-Condensed Matter*, 407, 2974 - 2977. <http://dx.doi.org/10.1016/j.physb.2011.08.001>

[125] Marques CAF, Castanheira JM (2012) A Detailed Normal-Mode Energetics of the General Circulation of the Atmosphere. *Journal Of The Atmospheric Sciences*, 69, 2718 - 2732.

<http://dx.doi.org/10.1175/JAS-D-11-0324.1>

[126] Marta-Almeida M, Reboreda R, Rocha C, Dubert J, Nolasco R, Cordeiro N, Luna T, Rocha A, Silva JDLE, Queiroga H, Peliz A, Ruiz-Villarreal M (2012) Towards Operational Modeling and Forecasting of the Iberian Shelves Ecosystem. *Plos One*, 7, e37343.

<http://dx.doi.org/10.1371/journal.pone.0037343>

[127] Martins LP, Almeida AJ, Andre PS, Pinto AN (2012) Photon-pair states and violation of CHSH inequality. *Microwave And Optical Technology Letters*, 54, 2454 - 2461.

<http://dx.doi.org/10.1002/mop.27127>

[128] Martins V, Abrantes I, Grangeia C, Martins P, Nagai R, Sousa SHM, Laut LLM, Dias JMA, Dias JM, da Silva EF, Rocha F (2012) Records of sedimentary dynamics in the continental shelf and upper slope between Aveiro-Espinho (N Portugal). *Journal Of Marine Systems*, 96-97, 48 - 60.

<http://dx.doi.org/10.1016/j.jmarsys.2012.02.001>

[129] Mata D, Silva RM, Fernandes AJ, Oliveira FJ, Costa PMFJ, Silva RF (2012) Upscaling potential of the CVD stacking growth method to produce dimensionally-controlled and catalyst-free multi-walled carbon nanotubes. *Carbon*, 50, 3585 - 3606.

<http://dx.doi.org/10.1016/j.carbon.2012.03.030>

[130] Mateus M, Vaz N, Neves R (2012) A process-oriented model of pelagic biogeochemistry for marine systems. Part II: Application to a mesotidal estuary. *Journal Of Marine Systems*, 94, S90 - S101.

<http://dx.doi.org/10.1016/j.jmarsys.2011.11.009>

[131] Monteiro CMB, Fernandes LMP, Veloso JFCA, dos Santos JMF (2012) Secondary scintillation readout from GEM and THGEM with a large area avalanche photodiode. *Journal Of Instrumentation*, 7, P06012.

<http://dx.doi.org/10.1088/1748-0221/7/06/P06012>

[132] Monteiro CMB, Fernandes LMP, Veloso JFCA, Oliveira CAB, dos Santos JMF (2012) Secondary scintillation yield from GEM and THGEM gaseous electron multipliers for direct dark matter search. *Physics Letters B*, 714, 18 - 23.

<http://dx.doi.org/10.1016/j.physletb.2012.06.066>

[133] Morais MHM, Correia ACM (2012) Stellar Wobble Due to a Nearby Binary System. *From Interacting Binaries To Exoplanets: Essential Modeling Tools*, 282, 137 - 138.

<http://dx.doi.org/10.1017/S1743921311027207>

[134] Morais MHM, Correia ACM (2012) Precession due to a close binary system: an alternative explanation for nu-Octantis?. *Monthly Notices Of The Royal Astronomical Society*, 419, 3447 - 3456.

<http://dx.doi.org/10.1111/j.1365-2966.2011.19986.x>

[135] Morais MHM, Giuppone CA (2012) Stability of prograde and retrograde planets in circular binary systems. *Monthly Notices Of The Royal Astronomical Society*, 424, 52 - 64.

<http://dx.doi.org/10.1111/j.1365-2966.2012.21151.x>

- [136] Mostardinha P, de Abreu FV (2012) Positive and negative selection, self-nonsel discrimination and the roles of costimulation and anergy. *Scientific Reports*, 2, 769. <http://dx.doi.org/10.1038/srep00769>
- [137] Nebel T, Amaro FD, Antognini A, Biraben F, Cardoso JMR, Covita DS, Dax A, Fernandes LMP, Gouvea AL, Graf T, Hansch TW, Hildebrandt M, Indelicato P, Julien L, Kirch K, Kottmann F, Liu YW, Monteiro CMB, Nez F, dos Santos JMF, Schuhmann K, Taqqu D, Veloso JFCA, Voss A, Pohl R (2012) The Lamb-shift experiment in Muonic helium. *Hyperfine Interactions*, 212, 195 - 201. <http://dx.doi.org/10.1007/s10751-012-0637-0>
- [138] Nebel T, Antognini A, Amaro FD, Biraben F, Cardoso JMR, Covita DS, Dax A, Dhawan S, Fernandes LMP, Giesen A, Graf T, Hansch TW, Indelicato P, Julien L, Kao CY, Knowles P, Kottmann F, Le Bigot E, Liu YW, Lopes JAM, Ludhova L, Monteiro CMB, Mulhauser F, Nez F, Rabinowitz P, dos Santos JMF, Schaller LA, Schuhmann K, Schwob C, Taqqu D, Veloso JFCA, Pohl R (2012) The size of the proton From the Lamb-shift in muonic hydrogen. *Hyperfine Interactions*, 212, 185 - 194. <http://dx.doi.org/10.1007/s10751-011-0386-5>
- [139] Neto MA, Silva EL, Fernandes AJS, Oliveira FJ, Silva RF (2012) Diamond/WC bilayer formation mechanism by hot-filament CVD. *Surface & Coatings Technology*, 206, 3055 - 3063. <http://dx.doi.org/10.1016/j.surfcoat.2011.12.005>
- [140] Neto MA, Silva EL, Ghumman CA, Teodoro OM, Fernandes AJS, Oliveira FJ, Silva RF (2012) Composition profiles and adhesion evaluation of conductive diamond coatings on dielectric ceramics. *Thin Solid Films*, 520, 5260 - 5266. <http://dx.doi.org/10.1016/j.tsf.2012.03.049>
- [141] Niesar S, Pereira RN, Stegner AR, Erhard N, Hoeb M, Baumer A, Wiggers H, Brandt MS, Stutzmann M (2012) Low-Cost Post-Growth Treatments of Crystalline Silicon Nanoparticles Improving Surface and Electronic Properties. *Advanced Functional Materials*, 22, 1190 - 1198. <http://dx.doi.org/10.1002/adfm.201101811>
- [142] Nunes SC, Silva NJO, Hummer J, Ferreira RAS, Almeida P, Carlos LD, Bermudez VD (2012) Water-mediated structural tunability of an alkyl/siloxane hybrid: from amorphous material to lamellar structure or bilamellar superstructure. *Rsc Advances*, 2, 2087 - 2099. <http://dx.doi.org/10.1039/c2ra00702a>
- [143] Olhero SM, Soma D, Amaral VS, Button TW, Alves FJ, Ferreira JMF (2012) Co-precipitation of a Ni-Zn ferrite precursor powder: Effects of heat treatment conditions and deagglomeration on the structure and magnetic properties. *Journal Of The European Ceramic Society*, 32, 2469 - 2476. <http://dx.doi.org/10.1016/j.jeurceramsoc.2012.03.017>
- [144] Oliveira CAB, Correia PMM, Schindler H, Ferreira AL, Monteiro CMB, dos Santos JMF, Biagi S, Veenhof R, Veloso JFCA (2012) Simulation of VUV electroluminescence in micropattern gaseous detectors: the case of GEM and MHSP. *Journal Of Instrumentation*, 7, P09006. <http://dx.doi.org/10.1088/1748-0221/7/09/P09006>
- [145] Oliveira GNP, Pereira AM, Lopes AML, Amaral JS, dos Santos AM, Ren Y, Mendonca TM, Sousa CT, Amaral VS, Correia JG, Araujo JP (2012) Dynamic off-centering of Cr³⁺ ions and

short-range magneto-electric clusters in CdCr₂S₄. *Physical Review B*, 86, 224418.

<http://dx.doi.org/10.1103/PhysRevB.86.224418>

[146] Oliveira TA, Torres VJB (2012) Ab initio modelling of boron related defects in amorphous silicon. *Physica Status Solidi C: Current Topics In Solid State Physics, Vol 9, No 10-11, 9, 1952 - 1954*. <http://dx.doi.org/10.1002/pssc.201200256>

[147] Omri A, Bejar M, Dhahri E, Es-Souni M, Valente MA, Graca MPF, Costa LC (2012) Electrical conductivity and dielectric analysis of La-0.75(Ca,Sr)(0.25)Mn0.85Ga0.15O₃ perovskite compound. *Journal Of Alloys And Compounds*, 536, 173 - 178.

<http://dx.doi.org/10.1016/j.jallcom.2012.04.094>

[148] Pages O, Souhabi J, Torres VJB, Postnikov AV, Rustagi KC (2012) Re-examination of the SiGe Raman spectra: Percolation/one-dimensional-cluster scheme and ab initio calculations. *Physical Review B*, 86, 45201. <http://dx.doi.org/10.1103/PhysRevB.86.045201>

[149] Paz E, Cebollada F, Palomares FJ, Gonzalez JM, Martins JS, Santos NM, Sobolev NA (2012) Ferromagnetic resonance and magnetooptic study of submicron epitaxial Fe(001) stripes. *Journal Of Applied Physics*, 111, 123917. <http://dx.doi.org/10.1063/1.4730136>

[150] Pereira RN, Almeida AJ, Stegner AR, Brandt MS, Wiggers H (2012) Exchange-Coupled Donor Dimers in Nanocrystal Quantum Dots. *Physical Review Letters*, 108, 126806.

<http://dx.doi.org/10.1103/PhysRevLett.108.126806>

[151] Pereira RN, Rowe DJ, Anthony RJ, Kortshagen U (2012) Freestanding silicon nanocrystals with extremely low defect content. *Physical Review B*, 86, 85449.

<http://dx.doi.org/10.1103/PhysRevB.86.085449>

[152] Pinho SLC, Faneca H, Geraldes CFGC, Delville MH, Carlos LD, Rocha J (2012) Lanthanide-DTPA grafted silica nanoparticles as bimodal-imaging contrast agents. *Biomaterials*, 33, 925 - 935. <http://dx.doi.org/10.1016/j.biomaterials.2011.09.086>

[153] Pinho SLC, Faneca H, Geraldes CFGC, Rocha J, Carlos LD, Delville MH (2012) Silica Nanoparticles for Bimodal MRI-Optical Imaging by Grafting Gd³⁺ and Eu³⁺/Tb³⁺-Complexes. *European Journal Of Inorganic Chemistry*, 2828 - 2837.

<http://dx.doi.org/10.1002/ejic.201101110>

[154] Pinho SLC, Laurent S, Rocha J, Roch A, Delville MH, Mornet S, Carlos LD, Vander Elst L, Muller RN, Geraldes CFGC (2012) Relaxometric Studies of gamma-Fe₂O₃@SiO₂ Core Shell Nanoparticles: When the Coating Matters. *Journal Of Physical Chemistry C*, 116, 2285 - 2291.

<http://dx.doi.org/10.1021/jp2086413>

[155] Plecha S, Silva PA, Oliveira A, Dias JM (2012) Establishing the wave climate influence on the morphodynamics of a coastal lagoon inlet. *Ocean Dynamics*, 62, 799 - 814.

<http://dx.doi.org/10.1007/s10236-012-0530-z>

[156] Pribulla T, Vanko M, Ammler-von Eiff M, Andreev M, Aslanturk A, Awadalla N, Baludansky D, Bonanno A, Bozic H, Catanzaro G, Celik L, Christopoulou PE, Covino E, Cusano F, Dimitrov D, Dubovsky P, Eigmueller P, Esmer EM, Frasca A, Hambalek L, Hanna M, Hanslmeier

A, Kalomeni B, Kjurkchieva DP, Krushevska V, Kudzej I, Kundra E, Kuznyetsova Y, Lee JW, Leitzinger M, Maciejewski G, Moldovan D, Morais MHM, Mugrauer M, Neuhauser R, Niedzielski A, Odert P, Ohlert J, Ozavci I, Papageorgiou A, Parimucha S, Poddany S, Pop A, Raetz M, Raetz S, Romanyuk Y, Ruzdjak D, Schulz J, Senavci HV, Srdoc G, Szalai T, Szekely P, Sudar D, Tezcan CT, Torun ME, Turcu V, Vince O, Zejda M (2012) The Dwarf project: Eclipsing binaries - precise clocks to discover exoplanets. *Astronomische Nachrichten*, 333, 754 - 766.

<http://dx.doi.org/10.1002/asna.201211722>

[157] Rai R, Duarte P, Bdikin I, Valente MA, Marques PA, Gracio J, Kholkin AL (2012) Local Nanoelectromechanical Properties of Multiferroics Gd-Doped BiFeO₃-BaTiO₃ Solid Solution. *Journal Of Nanoscience And Nanotechnology*, 12, 6639 - 6644.

<http://dx.doi.org/10.1166/jnn.2012.4559>

[158] Ramana EV, Graca MPF, Monteiro J, Mendiratta SK, Valente MA (2012) Improved Magnetoelectric effect in modified (Na_{0.5}Bi_{0.5})TiO₃-BaTiO₃-CoFe₂O₄ lead-free multiferroic composites. *2012 International Symposium On Applications Of Ferroelectrics Held Jointly With 11Th IEEE Ecapd And IEEE Pfm (Isaf/Ecapd/Pfm)*.

[159] Ramos A, Schiller MW, Abe I, Lopes PA, Simoes JA (2012) Experimental Measurement and Numerical Validation of Bone Cement Mantle Strains of an In Vitro Hip Replacement Using Optical FBG Sensors. *Experimental Mechanics*, 52, 1267 - 1274.

<http://dx.doi.org/10.1007/s11340-012-9596-2>

[160] Reis C, Chattopadhyay T, Andre P, Teixeira A (2012) Single Mach-Zehnder interferometer based optical Boolean logic gates. *Applied Optics*, 51, 8693 - 8701.

<http://dx.doi.org/10.1364/AO.51.008693>

[161] Rhouma FIH, Dhahri A, Dhahri J, Belmabrouk H, Valente MA (2012) Structural and dielectric properties of Ba-0.8 La-0.133 Ti-0.90 Sn-0.1 O-3. *Solid State Communications*, 152, 1874 - 1879. <http://dx.doi.org/10.1016/j.ssc.2012.07.014>

[162] Rhouma FIH, Dhahri A, Dhahri J, Valente MA (2012) Dielectric, modulus and impedance analysis of lead-free ceramics Ba_{0.8}La_{0.133}Ti_{1-x}Sn_xO₃ (x=0.15 and 0.2). *Applied Physics A- Materials Science & Processing*, 108, 593 - 600. <http://dx.doi.org/10.1007/s00339-012-6935-1>

[163] Rhouma FIH, Dhahri A, Dhahri J, Valente MA, Hlil EK (2012) Study of Structural, Magnetic and Electrical Properties of the Rare-Earth Manganite La_{0.2235}Pr_{0.2235}Nd_{0.2235}Sr_{0.33}MnO₃. *Journal Of Superconductivity And Novel Magnetism*, 25, 1115 - 1121.

<http://dx.doi.org/10.1007/s10948-011-1377-0>

[164] Ribeiro G, Conde M, Carvalho J, Rodrigues LC, Alves R, Ferreira RAS, Pawlicka A, Carlos LD, Silva MM (2012) Natural Membranes for Application in Biomedical Devices. *Molecular Crystals And Liquid Crystals*, 562, 147 - 155. <http://dx.doi.org/10.1080/15421406.2012.679172>

[165] Rocha AM, Fernandes G, Domingues F, Niehus M, Pinto AN, Facao M, Andre PS (2012) Halting the fuse discharge propagation using optical fiber microwires. *Optics Express*, 20, 21083 - 21088. <http://dx.doi.org/10.1364/OE.20.021083>

- [166] Rocha H, Dias JM, Ferreira BC, Lopes MC (2012) Combinatorial optimization for an improved transition from fluence optimization to fluence delivery in IMRT treatment planning. *Optimization*, 61, 969 - 987. <http://dx.doi.org/10.1080/02331934.2011.607498>
- [167] Rodrigues J, Mata D, Fernandes AJS, Neto MA, Silva RF, Monteiro T, Costa FM (2012) ZnO nanostructures grown on vertically aligned carbon nanotubes by laser-assisted flow deposition. *Acta Materialia*, 60, 5143 - 5150. <http://dx.doi.org/10.1016/j.actamat.2012.06.005>
- [168] Rodrigues J, Miranda SMC, Santos NF, Neves AJ, Alves E, Lorenz K, Monteiro T (2012) Rare earth co-doping nitride layers for visible light. *Materials Chemistry And Physics*, 134, 716 - 720. <http://dx.doi.org/10.1016/j.matchemphys.2012.03.056>
- [169] Rodrigues J, Peres M, Fernandes AJS, Graca MPF, Sobolev NA, Costa FM, Monteiro T (2012) Structural, optical and magnetic resonance properties of TiO₂ fibres grown by laser floating zone technique. *Applied Surface Science*, 258, 9143 - 9147. <http://dx.doi.org/10.1016/j.apsusc.2011.08.109>
- [170] Rodrigues J, Peres M, Soares MJ, Lorenz K, Marques JG, Neves AJ, Monteiro T (2012) Influence of neutron irradiation and annealing on the optical properties of GaN. *Physica Status Solidi C: Current Topics In Solid State Physics*, Vol 9, No 3-4, 9, 1016 - 1020. <http://dx.doi.org/10.1002/pssc.201100200>
- [171] Rodrigues J, Peres M, Soares MRN, Fernandes AJS, Ferreira N, Ferro M, Neves AJ, Monteiro T, Costa FM (2012) ZnO nano/microstructures grown by laser assisted flow deposition. *Journal Of Nano Research*, 18-19, 129 - 137. <http://dx.doi.org/10.4028/www.scientific.net/JNanoR.18-19.129>
- [172] Rodrigues J, Soares MRN, Carvalho RG, Fernandes AJS, Correia MR, Monteiro T, Costa FM (2012) Synthesis, structural and optical characterization of ZnO crystals grown in the presence of silver. *Thin Solid Films*, 520, 4717 - 4721. <http://dx.doi.org/10.1016/j.tsf.2011.10.208>
- [173] Ruiz M, Degollado JC, Alcubierre M, Nunez D, Salgado M (2012) Induced scalarization in boson stars and scalar gravitational radiation. *Physical Review D*, 86, 104044. <http://dx.doi.org/10.1103/PhysRevD.86.104044>
- [174] Sabyasachi S, Karmakar A, Majumdar S, Giri S, Das S, Amaral VS (2012) A-site disorder driven sharp field-induced transition and collapse of charge ordering in Sm_{1/2}Ca_{1/2}-xSrxMnO₃. *Journal Of Applied Physics*, 112, 73905. <http://dx.doi.org/10.1063/1.4755802>
- [175] Sabyasachi S, Patra M, Majumdar S, Giri S, Das S, Amaral VS, Iglesias O, Borghols W, Chatterji T (2012) Glassy magnetic phase driven by short-range charge and magnetic ordering in nanocrystalline La_{1/3}Sr_{2/3}FeO₃-delta: Magnetization, Mossbauer, and polarized neutron studies. *Physical Review B*, 86, 104416. <http://dx.doi.org/10.1103/PhysRevB.86.104416>
- [176] Salome PMP, Malaquias J, Fernandes PA, Ferreira MS, da Cunha AF, Leitao JP, Gonzalez JC, Matinaga FM (2012) Growth and characterization of Cu₂ZnSn(S,Se)₄ thin films for solar cells. *Solar Energy Materials And Solar Cells*, 101, 147 - 153. <http://dx.doi.org/10.1016/j.solmat.2012.02.031>

- [177] Sampaio MOP (2012) Angular correlations in TeV-gravity black hole events. *Journal Of High Energy Physics*, 66. [http://dx.doi.org/10.1007/JHEP03\(2012\)066](http://dx.doi.org/10.1007/JHEP03(2012)066)
- [178] Santos F, Gomez-Gesteira M, deCastro M, Alvarez I (2012) Differences in coastal and oceanic SST trends due to the strengthening of coastal upwelling along the Benguela current system. *Continental Shelf Research*, 34, 79 - 86. <http://dx.doi.org/10.1016/j.csr.2011.12.004>
- [179] Santos F, Gomez-Gesteira M, deCastro M, Alvarez I (2012) Variability of Coastal and Ocean Water Temperature in the Upper 700 m along the Western Iberian Peninsula from 1975 to 2006. *Plos One*, 7, e50666. <http://dx.doi.org/10.1371/journal.pone.0050666>
- [180] Santos FM, Brandao P, Felix V, Domingues MRM, Amaral JS, Amaral VS, Nogueira HIS, Cavaleiro AMV (2012) Organic-inorganic hybrid materials based on iron(III)-polyoxotungstates and 1-butyl-3-methylimidazolium cations. *Dalton Transactions*, 41, 12145 - 12155. <http://dx.doi.org/10.1039/c2dt31206a>
- [181] Santos NF, Rodrigues J, Fernandes AJS, Alves LC, Alves E, Costa FM, Monteiro T (2012) Optical properties of LFZ grown beta-Ga2O3:Eu3+ fibres. *Applied Surface Science*, 258, 9157 - 9161. <http://dx.doi.org/10.1016/j.apsusc.2011.07.069>
- [182] Santos P, Coutinho J, Rayson MJ, Briddon PR (2012) Electrical activity of multivacancy defects in silicon. *Physica Status Solidi C: Current Topics In Solid State Physics*, Vol 9, No 10-11, 9, 2000 - 2004. <http://dx.doi.org/10.1002/pssc.201200063>
- [183] Schmool DS, Goncalves FJT, Apolinario A, de Sousa N, Sobolev NA, Casoli F, Albertini F, Lupo P, Stamps RL, Hu C (2012) Modeling Exchange-Spring Layered Systems With Perpendicular Anisotropy Using Ferromagnetic Resonance Measurements. *Ieee Transactions On Magnetics*, 48, 4081 - 4084. <http://dx.doi.org/10.1109/TMAG.2012.2195645>
- [184] Silva NA, Almeida AJ, Pinto AN (2012) Interference in a Quantum Channel Due to Classical Four-Wave Mixing in Optical Fibers. *Ieee Journal Of Quantum Electronics*, 48, 472 - 479. <http://dx.doi.org/10.1109/JQE.2012.2185219>
- [185] Simoes P, Lopes P (2012) Dual-peak wide range temperature LPG sensor fabricated with a CO2 Laser and a high resolution system. *22Nd International Conference On Optical Fiber Sensors, Pts 1-3*, 8421, 84214D. <http://dx.doi.org/10.1117/12.970605>
- [186] Soares MRN, Nico C, Oliveira D, Peres M, Rino L, Fernandes AJS, Monteiro T, Costa FM (2012) Red light from ZrO2:Eu3+ nanostructures. *Materials Science And Engineering B-Advanced Functional Solid-State Materials*, 177, 712 - 716. <http://dx.doi.org/10.1016/j.mseb.2011.10.010>
- [187] Sousa A, Andre PS (2012) Online Group-Velocity Dispersion Monitor Based on Clock Frequency Power Analysis. *Ieee Photonics Technology Letters*, 24, 1533 - 1535. <http://dx.doi.org/10.1109/LPT.2012.2208185>
- [188] Sousa CT, Leitao DC, Proenca MP, Apolinario A, Azevedo AM, Sobolev NA, Bunyaev SA, Pogorelov YG, Ventura J, Araujo JP, Kakazei GN (2012) Probing the Quality of Ni Filled

- Nanoporous Alumina Templates by Magnetic Techniques. *Journal Of Nanoscience And Nanotechnology*, 12, 7486 - 7490. <http://dx.doi.org/10.1166/jnn.2012.6535>
- [189] Sousa JM, Ferreira AL, Fagg DP, Titus E, Krishna R, Gracio J (2012) Temperature Dependence of the Henry's Law Constant for Hydrogen Storage in NaA Zeolites: A Monte Carlo Simulation Study. *Journal Of Nanoscience And Nanotechnology*, 12, 6785 - 6791. <http://dx.doi.org/10.1166/jnn.2012.4569>
- [190] Sousa JMG, Ferreira AL, Barroso MA (2012) Determination of the solid-fluid coexistence of the n-6 Lennard-Jones system from free energy calculations. *Journal Of Chemical Physics*, 136, 174502. <http://dx.doi.org/10.1063/1.4707746>
- [191] Sundar LS, Ramana EV, Singh MK, De Sousa ACM (2012) Viscosity of low volume concentrations of magnetic Fe₃O₄ nanoparticles dispersed in ethylene glycol and water mixture. *Chemical Physics Letters*, 554, 236 - 242. <http://dx.doi.org/10.1016/j.cplett.2012.10.042>
- [192] Tang CJ, Fernandes AJS, Jiang XF, Pinto JL (2012) Simultaneous formation of nanocrystalline and < 100 > textured and {111} facet dominated microcrystalline diamond films using CH₄/H-2/O-2 plasma. *Diamond And Related Materials*, 24, 93 - 98. <http://dx.doi.org/10.1016/j.diamond.2011.12.001>
- [193] Teferi MY, Amaral VS, Lounrenco AC, Das S, Amaral JS, Karpinsky DV, Soares N, Sobolev NA, Kholkin AL, Tavares PB (2012) Magnetoelectric coupling in multiferroic heterostructure of rf-sputtered Ni-Mn-Ga thin film on PMN-PT. *Journal Of Magnetism And Magnetic Materials*, 324, 1872 - 1876. <http://dx.doi.org/10.1016/j.jmmm.2012.01.010>
- [194] Teixeira SS, Graca MPF, Costa LC (2012) Dielectric, morphological and structural properties of lithium ferrite powders prepared by solid state method. *Journal Of Non-Crystalline Solids*, 358, 1924 - 1929. <http://dx.doi.org/10.1016/j.jnoncrysol.2012.06.003>
- [195] Timopheev AA, Bdikin I, Lozenko AF, Stognei OV, Sitnikov AV, Los AV, Sobolev NA (2012) Superferromagnetism and coercivity in Co-Al₂O₃ granular films with perpendicular anisotropy. *Journal Of Applied Physics*, 111, 123915. <http://dx.doi.org/10.1063/1.4730397>
- [196] Tokarev A, Agulhon P, Long J, Quignard F, Robitzer M, Ferreira RAS, Carlos LD, Larionova J, Guerin C, Guari Y (2012) Synthesis and study of Prussian blue type nanoparticles in an alginate matrix. *Journal Of Materials Chemistry*, 22, 20232 - 20242. <http://dx.doi.org/10.1039/c2jm33585a>
- [197] Urtizberea A, Arizaga A, Silva NJO, Millan A, Palacio F, Luis F (2012) Texture-induced magnetic interactions in ferrofluids. *Journal Of Applied Physics*, 111, 93910. <http://dx.doi.org/10.1063/1.4709725>
- [198] Vaz N, Silva JDLE, Dias JOM (2012) Salt Fluxes in a Complex River Mouth System of Portugal. *Plos One*, 7, e47349. <http://dx.doi.org/10.1371/journal.pone.0047349>
- [199] Vicente CMS, Andre PS, Ferreira RAS (2012) Simple measurement of surface free energy using a web cam. *Revista Brasileira De Ensino De Fisica*, 34, 3312.

- [200] Vieira JM, Silva RA, Silva RF, Costa FM (2012) Enhancement of superconductivity in LFZ-grown BSCCO fibres by steeper axial temperature gradients. *Applied Surface Science*, 258, 9175 - 9180. <http://dx.doi.org/10.1016/j.apsusc.2011.11.054>
- [201] Vieira S, Coelho H, Nolasco R, Serodio J, Barnes RSK, Queiroga H (2012) Repeated cycles of immersion and emersion amplify the crawling rhythm of the intertidal gastropod *Hydrobia ulvae*. *Journal Of The Marine Biological Association Of The United Kingdom*, 92, 565 - 570. <http://dx.doi.org/10.1017/S0025315411000853>
- [202] Vilela SMF, Ananias D, Gomes AC, Valente AA, Carlos LD, Cavaleiro JAS, Rocha J, Tome JPC, Paz FAA (2012) Multi-functional metal-organic frameworks assembled from a tripodal organic linker. *Journal Of Materials Chemistry*, 22, 18354 - 18371. <http://dx.doi.org/10.1039/c2jm32501b>
- [203] Wieczorek MA, Correia ACM, Le Feuvre M, Laskar J, Rambaux N (2012) Mercury's spin-orbit resonance explained by initial retrograde and subsequent synchronous rotation. *Nature Geoscience*, 5, 18 - 21. <http://dx.doi.org/10.1038/NGEO1350>
- [204] Yang G, Li YH, Ji HM, Wang HY, Gao P, Wang L, Liu HD, Pinto J, Jiang XF (2012) Influence of Mn content on the morphology and improved electrochemical properties of Mn₃O₄ vertical bar MnO@carbon nanofiber as anode material for lithium batteries. *Journal Of Power Sources*, 216, 353 - 362. <http://dx.doi.org/10.1016/j.jpowsour.2012.05.092>
- [205] Zhachuk RA, Olshanetsky BZ, Coutinho J (2012) Nature of contrast in Ge/Si(111) layers in scanning tunneling microscopy in the presence of Bi and Sb surfactants. *Jetp Letters*, 95, 259 - 265. <http://dx.doi.org/10.1134/S0021364012050128>
- [206] Zhou B, Silva NJO, Shi FN, Palacio F, Mafra L, Rocha J (2012) Co-II/Zn-II-(L-Tyrosine) Magnetic Metal-Organic Frameworks. *European Journal Of Inorganic Chemistry*, 5259 - 5268. <http://dx.doi.org/10.1002/ejic.201200169>
- [207] Zilhao M, Cardoso V, Gualtieri L, Herdeiro C, Sperhake U, Witek H (2012) Dynamics of black holes in de Sitter spacetimes. *Physical Review D*, 85, 104039. <http://dx.doi.org/10.1103/PhysRevD.85.104039>
- [208] Zilhao M, Cardoso V, Herdeiro C, Lehner L, Sperhake U (2012) Collisions of charged black holes. *Physical Review D*, 85, 124062. <http://dx.doi.org/10.1103/PhysRevD.85.124062>