

## **Publicaciones:**

- 1) Electronic Subband Reconfiguration in a  $d^0$ -Perovskite Induced by Strain-Driven Structural Transformations.  
V. Laukhin, O. Copie, M. J. Rozenberg, R. Weht, K. Bouzehouane, N. Reyren, E. Jacquet, M. Bibes, A. Barthélémy, and G. Herranz  
*Phys. Rev. Lett.* 109, 226601
- 2) Localised Wannier orbital basis for the Mott insulators  $GaV_4S_8$  and  $GaTa_4Se_8$   
A. Camjayi, R. Weht, and M.J. Rozenberg  
Aceptado para su publicacion en EPL (Europhysics Letters)
- 3) Comparison of Ternary Bilayer Mixtures with Asymmetric or Symmetric Unsaturated Phosphatidylcholine Lipids by Coarse Grained Molecular Dynamics Simulations  
C. Rosetti and C. Pastorino  
*J. Phys. Chem. B* 116 , pp 3525-3537 (2012)
- 4) "Electronic and magnetic properties of the interface  $LaAlO_3/TiO_2$ -anatase from density functional theory".  
Valeria Ferrari, Mariana Weissman  
*Journal of Nanomaterials* 2012, article ID 757493.
- 5) "A triclinic polymorph of cyclo-tetra-thiosaccharinato-S: S-tetrakis[(triphenylphosphane-P)silver(I)]"  
M. Dennehy, E. Freire, R. Baggio.  
*Acta Cryst.* (2012) Sección C. C68, m17-m20.
- 6) "Spectroscopic Evidence in Solid and Solution of a Discrete Copper (I) Tetrahedral Complex Dimer Supported by Supramolecular Interactions"  
D. H. Jara, L. Lemus, L. Farías, E. Freire, R. Baggio, J. Guerrero.  
*European Journal of Inorganic Chemistry* (2012) 1579-1583.
- 7) "Aripiprazole salts. I. Aripiprazole nitrate"  
E. Freire, G. Polla, R. Baggio.  
*Acta Cryst.* (2012) Sección C. Vol 68, o170-o173.
- 8) "Aripiprazole salts. II. Aripiprazole perchlorate"  
E. Freire, G. Polla, R. Baggio.  
*Acta Cryst.* (2012) Sección C. Vol 68, o235-o239.
- 9) "Monodentate and bridging behaviour of the sulfur-containing ligand 4\_-[4-(methylsulfonyl)phenyl]-4,2\_:6\_,4\_\_-terpyridine in two discrete zinc(II) complexes with acetylacetonate"  
J. Granifo, R. Gavino, E. Freire and R. Baggio.  
*Acta Cryst.* (2012) Sección C. Vol 68, m269-m274.
- 10) Modelling impurity-assisted chain creation in noble-metal break junctions  
S. Di Napoli, A. Thiess, S. Blügel and Y. Mokrousov  
*Journal of Physics Condensed Matter* 24, 135501 (2012)
- 11) "Synthesis of a Phenanthridine Analogue of Natural Isocarbostryl Alkaloids"  
Daniel R. Vega, José M. Aguirre, Graciela Moltrasio  
*Synthesis*, (2012), 44, 125-129.

- 12) "Conformational polymorphism on Imatinib Mesylate: grinding effects"  
Damián Grillo, Griselda Polla, Daniel Vega  
Journal of Pharmaceutical Sciences, Vol 101 (2), 541-551 (2012).
- 13) "Synthesis and biological evaluation of some novel 1-indanone thiazolylhydrazone derivatives as anti-Trypanosoma cruzi agents"  
María E. Caputto, Alejandra Ciccarelli, Fernanda Frank, Albertina G. Moglioni, Graciela Y. Moltrasio, Daniel Vega, Elisa Lombardo, Liliana M. Finkielstein  
European Journal of Medicinal Chemistry 55, (2012) 155-163
- 14) "Crystal structure and magnetic properties of two new zoledronate complexes: a Mn dimer [Mn(II)(H3Zol)2.(H2O)2 ] and a Fe15 molecular cluster [Fe(III)15(HZol)10(H2Zol)2 (H2O)12(Cl4:(H2O)2).Cl7.(H2O)65 ] (where H4Zol: C5H10N2O7P2 is zoledronic acid)".  
Eleonora Freire Espeleta, Mariano Quintero, Daniel R. Vega, Ricardo F. Baggio.  
Inorganica Chimica Acta 394 (2013) 229-236.
- 15) An exact formalism to study the thermodynamic properties of hard-sphere systems under spherical confinement,  
Ignacio Urrutia, Gabriela Castelletti,  
Journal of chemical physics 136, nro.22 p.224509, 2012.
- 16) "Reversible switching of room temperature ferromagnetism in CeO2-Co nanoparticles",  
J. Sacanell, M. A. Paulin, V. Ferrari, G. Garbarino, and A. G. Leyva,  
Appl. Phys. Lett. 100, 172405 (2012).
- 17) "Charge localization in Co-doped Ceria with oxygen vacancies",  
G. Murgida, V. Vildosola, V. Ferrari, A. M. Llois,  
Solid State Communications 152, 368 (2012).
- 18) "β-NaFeO2, a new room-temperature multiferroic material"  
M. Viret, D. Rubi, D. Colson, D. Lebeugle, A. Forget, P. Bonville, G. Dhallenne, R. Saint-Martin, G. André and F. Ott  
Mat. Res. Bull 47, 2294 (2012)
- 19) "Optimization of resistive switching performance of metal-manganite oxide interfaces by a multipulse protocol"  
N. Ghenzi, M. J. Sánchez, M. J. Rozenberg, P. Stoliar, F. G. Marlasca, D. Rubi and P. Levy  
J. Appl. Phys. 111, 084512 (2012)
- 20) "Magnetism and electrode dependant resistive switching in Ca-doped ceramic bismuth ferrite"  
D. Rubi, F.G. Marlasca, M. Reinoso. P. Bonville and P. Levy  
Mat. Sci. Eng. B 177, 471 (2012)
- 21) "Resistive switching in ceramic multiferroic Bi0.9Ca0.1FeO3"  
D. Rubi, F. Gomez-Marlasca, P. Bonville, D. Colson and P. Levy  
Phys. B 407, 3144 (2012)
- 22) Ordering and segregation in bimetallic Fe-Pt nanoparticles  
A. Zink; G. Bozzolo and H. O. Mosca  
International Journal of Nanoscience. 11, 125011 (2012)
- 23) Lanthanides migration and immobilization in U-Zr nuclear fuels  
G.Bozzolo, G.L.Hofman, A.M. Yacout and H.O.Mosca

Journal Nuclear Materials. 425, 188-192 (2012)

24) Determination of the transition to the high entropy regime for alloys of refractory elements

M. F. del Grosso, G. Bozzolo, H.O. Mosca

Journal of alloys and compounds. 534, 25-31 (2012)

25) Atomistic modeling of ternary additions to NiTi and quaternary additions to Ni-Ti- Pd, Ni-Ti-Pt and Ni-Ti-Hf shape memory alloys

H.O. Mosca, G. Bozzolo and M.F. del Grosso

Physica B: Condensed Matter. 407, 3244-3247 (2012)

26) Modeling of high entropy alloys of refractory elements

M.F. del Grosso, G. Bozzolo and H.O. Mosca

Physica B: Condensed Matter. 407, 3285-3287 (2012)

27) A potential for Th from inversion of cohesive energy: elastic constants

S. Jaroszewicz, H.O. Mosca and J. E. Garcés

Physica B: Condensed Matter. 407, 3288-3290 (2012)

28) The temperature behavior of elastic and thermodynamic properties of fcc thorium

S. Jaroszewicz, H.O. Mosca and J. E. Garcés

Journal Nuclear Materials. 429, 136-142 (2012)

29) Characterization of steel rebars embedded in a 70-year old concrete structure

G.S. Duffó, M. Reinoso, C.P. Ramos, S.B. Farina

Cement and Concrete Research 42, 111-117, (2012)

30) Structural properties and hyperfine characterization of Sn-substituted goethites

A. L. Larralde, C. P. Ramos, B. Arcondo, A. E. Tufo, C. Saragovi, E. E. Sileo

Materials Chemistry and Physics 133, 735-740, (2012)

31) Effects of the Ti/Fe ratio on the phase composition and magnetic properties of mechanochemically activated Ti-Fe<sub>2</sub>O<sub>3</sub> mixtures

A. A. Cristóbal, C. P. Ramos, P. G. Bercoff; P. M. Botta, J. M. Porto López

Materials Chemistry and Physics 133, 971-976, (2012)

32) Structural and transport characterization of ultra thin Ba<sub>0.05</sub>Sr<sub>0.95</sub>TiO<sub>3</sub> layers grown over Nb electrodes for the development of Josephson Junctions.

M. Sirena, L. S. Avilés Felix, G. A. Carvacho Vera, H. L. Navarro Fernandez, L. B. Steren, R. Bernard, J. Briático, N. Bergeal, J. Lesueur, G. Faini.

Appl. Phys. Lett 100, 012602 (2012).

33) Exchange-bias effect at La<sub>0.75</sub>Sr<sub>0.25</sub>MnO<sub>3</sub>/LaNiO<sub>3</sub> interfaces.

J. C. Rojas Sanchez, B. Nelson-Cheeseman, M. Granada, E. Arenholz, L. B. Steren.

PHYSICAL REVIEW B 85, 094427 (2012)

34) Fe/MnAs bilayers: Magnetic anisotropy and the role of the interface

G. Alejandro, J. Milano, L.B. Steren, J.E. Gayone, M. Eddrief, V.H. Etgens.

- 35) Magnetic reorientation and thermal stability in MnAs/GaAs (100) micro patterns driven by size effects.  
M. Tortarolo, F. Fernandez Baldis, M. Sirena, L. B. Steren, J. Milano, V. H. Etgens, M. Eddrief, G. Faini.  
J. Appl. Phys. **112**, 013915 (2012)
- 36) Comparison of Ternary Bilayer Mixtures with Asymmetric or Symmetric Unsaturated Phosphatidylcholine Lipids by Coarse Grained Molecular Dynamics Simulations"  
Rosetti C M, Pastorino C.  
J.Phys.Chem B (2012) 116:3525-3537
- 37) Mesoporous carbon supported nanoparticulated PdNi<sub>2</sub>: a methanol tolerant oxygen reduction electrocatalyst.  
G. Ramos-Sánchez, M. M. Bruno, Y. R. Thomas, H. R. Corti, O. Solorza-Feria.  
Int J. Hydrogen Energy, 37, 31-40 (2012).
- 38) Electrochemical characterization of PtRu nanoparticles supported on mesoporous carbon for methanol electrooxidation.  
F. A. Viva, M. M. Bruno, M. Jobbágy, H. R. Corti.  
J. Phys. Chem. C, 116, 4097-4104 (2012).
- 39) Characterization of a monolithic mesoporous carbon as diffusion layer for micro fuel cells application.  
Y. R. J. Thomas, M. M. Bruno, H. R. Corti.  
Mic. Mes. Mater., 155, 47-55 (2012).
- 40) Electrodeposited mesoporous platinum catalysts over hierarchical carbon monolithic support as anode in small PEM fuel cells.  
M. M. Bruno, E. A. Franceschini, F. A. Viva, Y. R. Thomas, H. R. Corti.  
Int. J. Hydrogen Energy 37, 14911-14919 (2012).
- 41) Mesoporous Pt electrocatalyst for methanol tolerant cathodes of DMFC.  
E. A. Franceschini, M. A. Bruno, F. A. Viva, F. J. Williams, M. Jobbágy, H. R. Corti.  
Electrochim. Acta, 71, 173-180 (2012).
- 42) Preliminary results of the degradation of platinum based catalyst in PEM fuel cells using PIXE.  
M. Gunther, M. Debray, H. R. Corti.  
IAEA-TECDOC-1676. (2012) 99-105.
- 43) Methanol sorption and permeability in Nafion and acid-doped PBI and ABPBI membranes.  
L. A. Diaz, G. C. Abuin, H. R. Corti  
J. Membr. Sci, 411-412, 35-44 (2012).
- 44) Electrostatic self-assembly of hierarchical porous carbon microparticles.  
J. Balach, M. Bruno, G. Cotella, D. Acevedo, C. Barbero.  
J. Power sources. 199, 386-94 (2012).
- 45) Viscosity of supercooled aqueous glycerol solutions, validity of the Stokes-Einstein relationship, and implications for cryopreservation.  
J. A. Trejo González, M. P. Longinotti, H. R. Corti.

Cryobiology, 65, 159-162 (2012).

46) Deposition of Pt nanoparticles on different carbonaceous materials by using different preparation methods for PEMFC electrocatalysts. N. Veizaga, J. Fernandez, M. Bruno, O. Scelza, S. de Miguel. Int. J. Hydrogen Energy, 37, 17910-17920 (2012).

47) Xanthan chain length is modulated by increasing the availability of the polysaccharide copolymerase protein GumC and the outer membrane polysaccharide export protein Gum B. E. M. Galván, M. V. Ielmini, Y. Patel, M. I. Bianco, E. A. Franceschini, J. C. Schneider, L. Ielpi. Glycobiology, en prensa.

48) Electrochemical reduction of CO<sub>2</sub> over Sn-nafion for a fuel cell like device. G.K. S. Prakash, F. A. Viva, G. A. Olah. J. Power Sources, en prensa

49) Substrate effect on the swelling and water sorption of Nafion nanomembranes. G. C. Abuin, C. Fuertes, H. R. Corti. J. Membrane Sci., en prensa.

50) " Raman mapping analysis of pigments from Proas Iluminadas by Quinquela Martin" E.B. Halac, M. Reinoso, M. Luda, F. Marte. Journal of Cultural Heritage, 13, 469-473 (2012).

51) "Micro-Raman spectroscopy of carbon-based black pigments" E.P. Tomasini, E.B. Halac, M. Reinoso, E.J. Di Liscia, M. S. Maier Journal of Raman Spectroscopy, DOI 10.1002/jrs.4159, (2012).

52) -"Catena-[bis( $\mu$ 2-crotonato-0:0,0')-(crotonato-0,0')-diaqua-lanthanum(III) hydrate, adenine solvate]" Ana María Atria, Maria Teresa Garland and Ricardo Baggio .(2012) Acta Cryst. C68,m53-56.

53) "Two isomorphous crotonatolanthanide complexes: Di- $\mu$ -but-2-enoato-bis[diacquabis( but-2-enoato) Ln(III)]. heptahydrate, adenine solvate (Ln: Dy, Sm)" Ana María Atria, Maria Teresa Garland and Ricardo Baggio Acta Cryst. C68 ,m80-m84 (2012).

54) "Four new Ni(II) cyclam complexes, with a new cyclam-methyl imidazole ligand: 1-methylimidazole-2-ylmethyl-1,4,8,11-tetraazacyclotetradecane". Ariel G. De Candia, Matias Molnar, Leonardo Slep and Ricardo Baggio (2012) Acta Cryst. C68, m121-m126.

55) "Two dimeric copper pyrophosphate complexes, having different ancillary ligands [ (I): 2, 2' bipyridine; (II): 2,2':6',2"-terpyridine] and displaying very strong O-H-O interactions". Rosana P. Sartoris, Mireille Perek, Rafael Calvo and Ricardo Baggio. (2012) Inorg.Chem.Comm 22, 141-145.

56) "Magneto-structural study and synthesis optimization of a phosphovanadate copper complex, [Cu(VO)<sub>2</sub>(PO<sub>4</sub>)<sub>2</sub>(H<sub>2</sub>O)<sub>4</sub>]<sub>n</sub>" R. Baggio, D. Contreras, Y. Moreno, Ram Arrue, I.E. Paulus, O. Peña, J.Y. Pivan.

(2012) J.Coord.Chem. Vol. 65, No. 13, 2319-2331-

57) "Ammonium 4-methoxybenzenesulfonate".

Sebastián Suarez, Fabio Doctorovich and Ricardo Baggio.

(2012). Acta Cryst. E68, o2228-o2229

58) Bis(2-amino-1H-benzimidazol-3-ium)tetrakis( $\mu$ -but-2-enoato)-

$\kappa 40:0_;$  $\kappa 30,0_:$  $0;$  $\kappa 30:0,0_$ -bis-[bis(but-2-enoato- $\kappa 20,0_$ )holmium(III)].

Ana María Atria, María Teresa Garland and Ricardo Baggio. (

2012). Acta Cryst. C68, m185-m188

59) "5-aminoisoquinoline"

Ana María Atria, María Teresa Garland and Ricardo Baggio

(2012). Acta Cryst. C68, . o392-o394.

60) "N-(Phenylmethyl-sulfonyl)-O-((phenylmethylsulfonyl)-oxy) benzene-methyl-sulfonamide: a new member of the (XS<sub>02</sub>)-ON-(S<sub>02X</sub>)<sub>2</sub>family".

Sebastián Suarez, Fabio Doctorovich and Ricardo Baggio

(2012) Acta Cryst. C68, o417-o420.

61) "Crystal structure and magnetic properties of two new zolodronate

complexes: a Mn dimer [Mn(II)(H<sub>3</sub>Zol)<sub>2</sub>.(H<sub>2</sub>O)<sub>2</sub>] and a Fe<sub>15</sub> molecular cluster [Fe(III)<sub>15</sub>(HZol)<sub>10</sub>(H<sub>2</sub>Zol)<sub>2</sub>(H<sub>2</sub>O)<sub>12</sub>(Cl<sub>4</sub>:(H<sub>2</sub>O)<sub>2</sub>).Cl<sub>7</sub>.(H<sub>2</sub>O)<sub>65</sub>] (where H<sub>4</sub>Zol: C<sub>5</sub>H<sub>10</sub>N<sub>2</sub>O<sub>7</sub>P<sub>2</sub>).

Eleonora Freire, Mariano Quintero, Daniel Vega and Ricardo Baggio.

(2012) ICA C68\_394, 229-236.

62) Di(acetate-0,0')-(4,4'-dimethyl-2,2'-bipyridine) zinc(II).

Miguel A. Harvey, Sebastian A. Suarez, Fabio Doctorovich and Ricardo

Baggio

(2012). Acta Cryst. E68, m1377-1378.

63) "3-Methyl-5-(methylthio)-1,3,4-thiadiazole-2(3H)-thione".

Sebastian A. Suarez, Saroj K. S. Hazari, Biplab Ganguly, Fabio

Doctorovich, Tapashi G. Roy and Ricardo Baggio

(2012) Acta Cryst. E68, Cryst. E68, o3045-o3046

64) Magnetic hydrophobic nanocomposites: Silica aerogel/maghemite.

P. Mendoza Zélis, M.B. Fernández van Raap, L.M. Socolovsky, A.G.

Leyva, F.H. Sánchez

Phys B Condensed Matter, Volume 407, Issue 16, 15 August 2012, Pages

3113-3116

65) Electrical transport properties of manganite powders under pressure.

M.G. Rodríguez, A.G.Leyva, C.Acha.

Phys B Condensed Matter, Volume 407, Issue 16, 15 August 2012, Pages

3137-3140.

66) Anisotropy and relaxation processes of uniaxially oriented CoFe<sub>204</sub> nanoparticles dispersed in PDMS.

P.S. Antonel, R.M.Negri, A.G.Leyva, G.A.Jorge.

Phys B Condensed Matter, Volume 407, Issue 16, 15 August 2012, Pages

3165-3167.

67) "Resistive Switching In Ag-TiO<sub>2</sub> Contacts",

N. Ghenzi, F. Gomez Marlasca, M.C.Fuertes, P. Stoliar and P. Levy,

PhysicaB (2012), <http://dx.doi.org/10.1016/j.physb.2011.12.034>

68) Enthalpy change in the magnetocaloric effect.

M. Quintero, L. Ghivelder, A. M. Gomes, J. Sacanell and F. Parisi.

J. Appl. Phys. 112, 103912 (2012);

69) Direct observation of magnetocaloric effect by differential thermal analysis: influence of experimental parameters, Y. Rotstein Habarnau, P. Bergamasco, **J. Sacanell**, G. Leyva, C. Albornoz, Mariano Quintero. Physica B 407, 3305-3307 (2012).

70) "Effect of preparation method on the properties of nanostructured gadolinia-doped ceria materials for IT-SOFCs". F.F. Muñoz, A.G. Leyva, R.T. Baker, R.O. Fuentes. International Journal of Hydrogen Energy 37(2012) 14854-14863