Departamento de Física de la Materia Condensada División Experimental División Teoría

Publicaciones 2018

•"Synthesis and Performance of Nickel/Reduced Graphene Oxide Hybrid for Hydrogen Evolution Reaction." (artículo con referato)

Esteban A. Franceschini and Gabriela I. Lacconi

Electrocatalysis 9(1) (2018) 47-58 [abstract,doi]

•"Synthesis, crystal structure and magnetic properties of di aqua bis(2,6-diamino-7H-purin-1-ium-κN⁹) bis(4,4′-oxydibenzoate-κO) cobalt(II) dihydrate." (artículo con referato)

Ana María Atria, José Parada, Yanko Moreno, Sebastián Suárez, Ricardo Baggio and Octavio Peña

Acta Cryst. C **74**(1) (2018) *37-44* [abstract,doi]

•"A Two-Dimensional Manganese Gallium Nitride Surface Structure Showing Ferromagnetism at Room Temperature" (artículo con referato)

Yingqiao Ma, Abhijit V. Chinchore, Arthur R. Smith, María Andrea Barral and Valeria Ferrari Nano Lett. **18**(1) (2018) *158-166* [abstract,doi]

•"Tuning the interfacial charge, orbital, and spin polarization properties in $La_{0.67}Sr_{0.33}MnO_3/La_{1.x}Sr_xMnO_3$ bilayers" (artículo con referato)

Santiago J. Carreira, Myriam H. Aguirre, Javier Briatico, Eugen Weschke and Laura B. Steren Appl. Phys. Lett. **112**(3) (2018) *032401/1-5* [abstract,doi]

•"Generation and Stability of the gem-Diol Forms in Imidazole Derivatives Containing Carbonyl Groups. Solid-State NMR and Single-Crystal X-ray Diffraction Studies" (artículo con referato)

Ayelén Florencia Crespi, Agustín Jesús Byrne, Daniel Vega, Ana Karina Chattah, Gustavo Alberto Monti and Juan Manuel Lázaro-Martínez

J. Phys. Chem. A **122**(2) (2018) 601-609 [abstract,doi]

•"Injection locking at 2f of spin torque oscillators under influence of thermal noise" (artículo con referato)

M. Tortarolo, B. Lacoste, J. Hem, C. Dieudonné, M.-C. Cyrille, J.A. Katine, D. Mauri, A. Zeltser, L.D. Buda-Prejbeanu and U. Ebels

Scientific Reports 8 (2018) 1728/1-7 [abstract,doi]

•"Structure and electrical properties of a one-dimensional polymeric silver thiosaccharinate complex with argentophilic interactions" (artículo con referato)

Mariana Dennehy, Pilar Amo-Ochoa, Eleonora Freire, Sebastián Suárez, Emilia Halac and Ricardo Baggio

Acta Cryst. C **74**(2) (2018) *186-193* [abstract,doi]

•"Diffusion of Water and Electrolytes in Mesoporous Silica with a Wide Range of Pore Sizes" (artículo con referato)

Diana C. Martínez Casillas, M. Paula Longinotti, Mariano M. Bruno, Fabián Vaca Chávez, Rodolfo H. Acosta and Horacio R. Corti

J. Phys. Chem. C **122**(6) (2018) *3638-3647* [abstract,doi]

•"Isotopic equilibria in aqueous clusters at low temperatures: Insights from the MB-pol many-body potential" (artículo con referato)

Pablo E. Videla, Peter J. Rossky and D. Laria

J. Chem. Phys. **148**(8) (2018) *084303/1-5* [abstract,doi]

•"Concurrent ionic migration and electronic effects at the memristive TiO,/

La_{1/3}Ca_{2/3}MnO_{3.x} interface" (artículo con referato)

W. Román Acevedo, C. Ferreyra, M.J. Sánchez, C. Acha, R. Gay and D. Rubi

J. Phys. D: Appl. Phys. **51**(12) (2018) *125304/1-6* [abstract,doi]

•"Bimodal Dielectric Breakdown in Electronic Devices Using Chemical Vapor Deposited Hexagonal Boron Nitride as Dielectric" (artículo con referato)

Felix Palumbo, Xianhu Liang, Bin Yuan, Yuanyuan Shi, Fei Hui, Marco A. Villena and Mario Lanza Adv. Electron. Mater. **4**(3) (2018) *1700506/1-8* [abstract,doi]

•"Dynamic tuning by hydrostatic pressure of magnetocaloric properties to Ericsson like cycles" (artículo con referato)

P. Gaztañaga, J. Sacanell, A.G. Leyva and M. Quintero

J. Magn. Magn. Mater. 449 (2018) 17-20 [abstract,doi]

•"Topological study of diverse hydrogen-bonded patterns found in a system of a nickel(II) complex and the sulfate anion" (artículo con referato)

M.A. Harvey, S. Suarez, P.N. Zolotarev, D.M. Proserpio and R. Baggio

Acta Cryst. C **74**(3) (2018) *351-359* [abstract,doi]

•"Calorimetric study of water's two glass transitions in the presence of LiCI" (artículo con referato)

Guadalupe N. Ruiz, Katrin Amann-Winkel, Livia E. Bove, Horacio R. Corti and Thomas Loerting Phys. Chem. Phys. **20**(9) (2018) *6401-6408* [abstract,doi]

•"Isotope effects in aqueous solvation of simple halides" (artículo con referato)

Pablo E. Videla, Peter J. Rossky and D. Laria

J. Chem. Phys. **148**(10) (2018) *102306/1-7* [abstract,doi]

•"Screening of catalytic activity of natural iron-bearing materials towards the Catalytic Wet Peroxide Oxidation of Orange II" (artículo con referato)

Natalia Inchaurrondo, Agustín Maestre, Gregor Žerjav, Albin Pintar, Cinthia Ramos and Patricia Haurea

J. Environ. Chem. Eng. **6**(2) (2018) 2027-2040 [abstract,doi]

•"Caracterización hiperfina de un acero P91 sometido a ciclos de enfriamiento a distintas velocidades" (artículo con referato)

L.L. Garcia, C.A. Danon y C.P. Ramos

Revista SAM 1 (2018) 23-28 [abstract,url]

•"Thermal evolution of structures and conductivity of Pr-substituted

$BaZr_{0.7}Ce_{0.2}Y_{0.1}O_{3-\delta}$: potential cathode components for protonic ceramic fuel cells" (artículo con referato)

Gemma Heras-Juaristi, Ulises Amador, Rodolfo O. Fuentes, Adilson L. Chinelatto, Julio Romero de Paz, Clemens Ritter, Duncan P. Fagg, Domingo Pérez-Colla and Glenn C. Mather

J. Mater. Chem. A **6**(13) (2018) *5324-5334* [abstract,doi]
•"Effect of forming gas annealing on the degradation properties of Ge-based MOS stacks" (artículo con referato)

F. Aguirre, S. Pazos, F.R.M. Palumbo, S. Fadida, R. Winter and M. Eizenberg

J. Appl. Phys. **123**(13) (2018) *134103/1-9* [abstract,doi]

•"Enhancing the nonlinear thermoelectric response of a correlated quantum dot in the Kondo regime by asymmetrical coupling to the leads" (artículo con referato)

Diego Pérez Daroca, Pablo Roura-Bas and Armando A. Aligia

Phys. Rev. B **97**(16) (2018) 165433/1-7 [abstract,doi]

•"Interplay of Coordination Environment and Magnetic Behavior of Layered Co(II) Hydroxichlorides: A DFT+U Study" (artículo con referato)

Diego Hunt, Matías Jobbagy and Damián A. Scherlis

Inorg. Chem. **57**(9) (2018) 4989-4996 [abstract,doi]

•"Three new dihydro-β-agarofuran sesquiterpenes from the seeds of Maytenus boaria" (artículo con referato)

C. Paz, M. Heydenreich, B. Schmidt, N. Vadra and R. Baggio

Acta Cryst. C **74**(5) (2018) *564-570* [abstract,doi]

•"Physicochemical properties of nanostructured Pd/lanthanide-doped ceria spheres with high catalytic activity for CH_A combustion " (artículo con referato)

Rodolfo O. Fuentes, Leandro M. Acuña, A. Gabriela Leyva, Richard T. Baker, Huiyan Pan, Xiaowei Chen and Juan J. Delgado-Jaén

J. Mater. Chem. A 6(17) (2018) 7488-7499 [abstract,doi]

•"Grand Canonical Investigation of the Quasi Liquid Layer of Ice: Is It Liquid?" (artículo con referato)

Ignacio Pickering, Martin Paleico, Yamila A. Perez Sirkin, Damian A. Scherlis and Matías H. Factorovich

J. Phys. Chem. B **122**(18) (2018) 4880-4890 [abstract,doi]

•"A ratiometric method for the oxidation mapping of metallic systems" (artículo con referato)

C. Gaviglio and G. Carrone

Anal. Methods **10**(17) (2018) 2007-2015 [abstract,doi]

•"Au Nanoparticles-Mesoporous TiO₂ Thin Films Composites as SERS Sensors: A

Systematic Performance Analysis" (artículo con referato)

M. Mercedes Zalduendo, Judith Langer, Juan J. Giner-Casares, Emilia B. Halac, Galo J.A.A. Soler-Illia, Luis M. Liz-Marzán and Paula C. Angelomé

J. Phys. Chem. C **122**(24) (2018) *13095-13105* [abstract,doi]

•"Análisis de rellenos en surcos incisos y excisos en pucos de Fiambalá (Catamarca, Argentina)" (artículo con referato)

Eleonora Freire, Emilia B. Halac, Griselda Polla, María Reinoso, Mara Basile and Norma Ratto Intersecciones antropol. **19**(1) (2018) *17-24* [abstract,url]

•"Melting temperature of CoCrFeNiMn high-entropy alloys" (artículo con referato)

M.A. Gutierrez, G.D. Rodriguez, G. Bozzolo and H.O. Mosca

Comp. Mater. Sci. **148** (2018) 69-75 [abstract,doi]

•"A crystallographic and thermal study of pridinol mesylate and its monohydrated solvate" (artículo con referato)

P. Gaztañaga, R. Baggio and D.R. Vega

Acta Cryst. B **74**(3) (2018) *304-310* [abstract,doi]

•"Impact of sub- and supra- threshold switching in the synaptic behavior of TiO2memristors" (artículo con referato)

N. Ghenzi and P. Levy

Microelectron. Eng. **193** (2018) 13-17 [abstract,doi]

•"Insight into the Metal Content.Structure.Property Relationship in Lanthanide Metal.Organic Frameworks: Optical Studies, Magnetism, and Catalytic Performance" (artículo con referato)

Germán E. Gomez, Elena V. Brusau, Joaquín Sacanell, Galo J.A.A. Soler Illia and Griselda E. Narda

Eur. J. Inorg. Chem. **2018**(20-21) (2018) 2452-2460 [abstract,doi]

•"Influence of Cholesterol on the Dynamics of Hydration in Phospholipid Bilayers" (artículo con referato)

M. Dolores Elola and Javier Rodriguez

J. Phys. Chem. B **122**(22) (2018) *5897-5907* [abstract,doi]

•"Magnetic properties of cobalt doped ZrO₂ nanoparticles: Evidence of Co

segregation" (artículo con referato)

Francisco González Pinto, Mariano Andrés Paulin, Ana Gabriela Leyva and Joaquín Sacanell Mater. Res. Express **5**(6) *066103/1-9* [abstract,doi]

•"Thermal cycling effects on static and dynamic properties of a phase separated manganite" (artículo con referato)

- J. Sacanell, B. Sievers, M. Quintero, L. Granja, L. Ghivelder and F. Parisi
- J. Magn. Magn. Mater. **456** (2018) 212-216 [abstract,doi]

•"Zn thiosacharinates: From ionic to polymeric structures. Synthesis, characterization and cell proliferation inhibition studies" (artículo con referato)

Fermín Delgado, Eleonora Freire, Ricardo Baggio, Verónica González Pardo, Viviana Dornand Mariana Dennehy

Inorg. Chim. Acta 479 266-274 [abstract,doi]

•"Influence of particle size and agglomeration in solid oxide fuel cell cathodes using manganite nanoparticles" (artículo con referato)

Hernán Martinelli, Diego G Lamas, Ana G Leyva and Joaquín Sacanell

Mater. Res. Express **5**(7) (2018) 075013/1-13 [abstract,doi]

•"Properties of the hard-sphere fluid at a planar wall using virial series and molecular-dynamics simulation" (artículo con referato)

Iván E. Paganini, Ruslan L. Davidchack, Brian B. Laird and Ignacio Urrutia J. Chem. Phys. **149**(1) (2018) *014704/1-8* [abstract,doi]

•"Effect of halogen dopants on the properties of Li₂O₂: is chloride special?" (artículo con referato)

Henry A. Cortes, Verónica L. Vildosola, María Andrea Barral and Horacio R. Corti Phys. Chem. Phys. **20**(25) (2018) *16924-16931* [abstract,doi]

•"Rhombohedral R3c to orthorhombic Pnma phase transition induced by Y-doping in BiFeO₃" (artículo con referato)

M.E Graf, S. Di Napoli, M.A. Barral, L.M. Saleh Medina, R.M. Negri, M. Sepliarsky and A.M. Llois J. Phys.: Condens. Matter **30**(28) (2018) *285701/1-8* [abstract,doi]

•"Efecto de la sustitución de V por Ti sobre las temperaturas de transformación de fase y el desajuste de red matriz/precipitado en la superaleación 76Fe-12Al-12V" (artículo con referato)

Pedro Antonio Ferreirós, Paula Regina Alonso, Daniel Roberto Vega y Gerardo Héctor Rubiolo Matéria (Rio J.) **23**(2) (2018) *12024/1-9* [abstract,doi]

•"Síntesis y propiedades de electrodos de níquel/grafeno para generación de hidrógeno" (artículo con referato)

Melisa Julieta Gomez, Esteban Andres Franceschini, Horacio Roberto Corti y Gabriela Inés Lacconi

Matéria (Rio J.) 23(2) (2018) 12128/1-7 [abstract,doi]

•"Removal of Cs⁺ from aqueous solutions by perlite" (artículo con referato)

Malena Cabranes, Ana Gabriela Leyva and Paola Alejandra Babay Environ. Sci. Pollut. Res. **25**(22) (2018) 21982-21992 [abstract,doi]

•"Spin-orbit and anisotropic strain effects on the electronic correlations in Sr_2RuO_4 " (artículo con referato)

Jorge I. Facio, Jernej Mravlje, Leonid Pourovskii, Pablo S. Cornaglia and V. Vildosola Phys. Rev. B **98**(8) (2018) *085121/1-10* [abstract,doi]

•"Nanopatterning of Solvent between Apposing Planar Brushes under Pressure" (artículo con referato)

Claudio Pastorino, Yongwook Kim, Sergiy Minko and Marcus Müller Macromolecules **51**(16) (2018) *6387-6394* [abstract,doi]

•"Reduced ${\rm CeO_2(111)}$ ordered phases as bulk terminations: Introducing the structure of ${\rm Ce_3O_5}$ " (artículo con referato)

G.E. Murgida, V. Ferrari, A.M. Llois and M.V. Ganduglia-Pirovano Phys. Rev. Materials **2**(8) (2018) *083609* [abstract,doi]

•"Ionic Transport and Speciation of Lithium Salts in Glymes: Experimental and Theoretical Results for Electrolytes of Interest for Lithium.Air Batteries" (artículo con referato)

Gabriela Horwitz, Matías Factorovich, Javier Rodriguez, Daniel Laria and Horacio R. Corti ACS Omega **3**(9) *11205-11215* [abstract,doi]

- •"An insight into the electrochemical performance of $La_{0.5.x}Pr_xBa_{0.5}CoO_{3-\delta}$ as cathodes for solid oxide fuel cells: study of the O_2 -reduction reaction " (artículo con referato)
- D. Garcés, H. Wang, S.A. Barnett, A.G. Leyva, F.R. Napolitano, R.O. Fuentes, H.E. Troianiand L.V. Mogni
- J. Mater. Chem. A 6(34) (2018) 16699-16709 [abstract,doi]
- •"Vitrification of U_3O_8 in iron aluminium phosphate matrices including Bi_2O_3 as uranium surrogate" (artículo con referato)
- J. Ma. Rincón, C. Ramos, P. Arboleda and C.J.R. González Oliver Mater. Lett. **227** (2018) *82-85* [abstract,doi]
- •"Chemical potential and free energy of nanoconfined water in Newton black films" (artículo con referato)

S.Di Napoli

Chem. Phys. **513** (2018) *246-251* [abstract,doi]

- •"Adsorption of Ne on a planar solid Mg surface revisited" (artículo con referato)
 Leszek Szybisz, Salvador A.Sartarelli and Ignacio Urrutia
- J. Phys. Chem. Solid. **121** (2018) *386-395* [abstract,doi]
- •"Assessment of insecticidal responses of extracts and compounds of Drimys winteri, Lobelia tupa, Viola portalesia and Vestia foetida against the granary weevil Sitophilus granarius" (artículo con referato)

Cristian Paz, Viviana Burgos, Andres Iturra, Ramón Rebolledo, Leandro Ortiz, Ricardo Baggio, José Becerra and Carlos L. Cespedes-Acuña

Industrial Crops and Products 122 (2018) 232-238 [abstract,doi]

•"The quasi-liquid layer of ice revisited: the role of temperature gradients and tip chemistry in AFM studies" (artículo con referato)

Julián Gelman Constantin, Melisa M. Gianetti, María P. Longinotti and Horacio R. Corti Atmos. Chem. Phys. **18**(20) (2018) *14965-14978* [abstract,doi]

•"Influence of the spatial distribution of border traps in the capacitance frequency dispersion of ${\rm Al_2O_3/InGaAs"}$ (artículo con referato)

Felix Palumbo, Fernando L. Aguirre, Sebastian M. Pazos, Igor Krylov, Roy Winter and Moshe Eizenberg

Solid State Electron. 149 (2018) 71-77 [abstract,doi]

•"Structures, Phase Fields, and Mixed Protonic-Electronic Conductivity of Ba-Deficient, Pr-Substituted $BaZr_{0.7}Ce_{0.2}Y_{0.1}O_{3-\delta}$ " (artículo con referato)

Gemma Heras-Juaristi, Ulises Amador, Julio Romero de Paz, Rodolfo O. Fuentes, Adilson L. Chinelatto, Clemens Ritter, Duncan P. Fagg, Domingo Pérez-Coll and Glenn C. Mather Inorg. Chem. **57**(23) (2018) *15023-15033* [abstract,doi]

•"N-haloacetyl phenothiazines and derivatives: Preparation, characterization and structure-activity relationship for antifungal activity" (artículo con referato)

Gabriela P. Sarmiento, M. Florencia Martini, Roxana G. Vitale, Lucas E. Fabian, Javier Afeltra, Daniel Vega, Graciela Y. Moltrasio and Albertina G. Moglioni Arabian Journal of Chemistry (2018), en prensa [abstract,doi]

•"One step synthesis of high efficiency nickel/mesoporous TiO₂ hybrid catalyst for hydrogen evolution reaction" (artículo con referato)

Esteban A. Franceschini, Melisa J. Gomez and Gabriela I. Lacconi Journal of Energy Chemistry (2018), en prensa [abstract,doi]

- •"Studying ReRAM devices at Low Earth Orbits using the LabOSat platform" (artículo con referato)
- M. Barella, G. Sanca, F. Gomez Marlasca, W. Román Acevedo, D. Rubi, M.A. García Inza, P. Levy and F. Golmar

Radiat. Phys. Chem. **154** (2019) *85-90*, en prensa [abstract,doi]

•"Synthesis of coal fly ash zeolite for the catalytic wet peroxide oxidation of Orange II" (artículo con referato)

Herney Ramírez, María Margarita Guerra Núñez, Anamaria Barrera Bogoya, Daniel Fernando Blanco Gomez, Cinthia Ramos, Carla di Luca, Natalia Inchaurrondo and Patricia Haure Environ. Sci. Pollut. Res. (2018), en prensa [abstract,doi]

•"Kinetic and equilibrium adsorption of two post-harvest fungicides onto copperexchanged montmorillonite: synergic and antagonistic effects of both fungicides' presence" (artículo con referato)

Martina Gamba, Juan M. Lázaro-Martínez, Melisa S. Olivelli, Florencia Yarza, Daniel Vega, Gustavo Curutchet and Rosa M. Torres Sánchez

Environ. Sci. Pollut. Res. (2018), en prensa [abstract,doi]

- •"Relation between width of zero-bias anomaly and Kondo temperature in transport measurements through correlated quantum dots: Effect of asymmetric coupling to the leads" (artículo con referato)
- D. Pérez Daroca, P. Roura-Bas and A.A. Aligia

Aceptado para su publicación en Phys. Rev. B (2018) [abstract,url]

•"New results on the continuous cooling behavior of an ASTM A335 P92 steel" (acta de conferencia)

M.N. Xaubet, C.P. Ramos, C.A. Danón and M.I. Luppo

Proc. of the "International Conference on Fast Reactors and Related Fuel Cycles: Next Generation Nuclear Systems for Sustainable Development" (FR17), Yekaterinburg, Russian Federation, June 26-29, 2017.

[abstract,url]

•"Bipolar Resistive Switching on TiO₂/Au by Conducting Atomic Force

Microscopy" (acta de conferencia)

M. Linares Moreau, M. Barella, L. López Mir, N. Ghenzi, F. Golmar, L.P. Granja, C. Ocal and P. Levy

Proc. of the "XXIII Latin American Symposium on Solid State Physics" (SLAFES23), San Carlos de Bariloche, Río Negro, Argentina, April 10-13, 2018.

Materials Today: Proceedings (2018), en prensa [abstract]

- •"Magnetocaloric Effect in $La_{0.88}Sr_{0.12}MnO_3$ films" (acta de conferencia)
- S. Passanante, D. Goijman, M. Linares Moreau, A.G. Leyva, C. Albornoz, D. Rubi, C. Ferreyra, D. Vega, L. Granja and M. Quintero

Proc. of the "XXIII Latin American Symposium on Solid State Physics" (SLAFES23), San Carlos de Bariloche, Río Negro, Argentina, April 10-13, 2018.

Materials Today: Proceedings (2018), en prensa [abstract]

•"Thermal cycling memory in phase separated manganites" (acta de conferencia)
B. Sievers, M. Quintero and J. Sacanell

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Proc. of the "XXIII Latin American Symposium on Solid State Physics" (SLAFES23), San Carlos de Bariloche, Río Negro, Argentina, April 10-13, 2018.

Materials Today: Proceedings (2018), en prensa [abstract]

•"The Atomic Layer Deposition Technique for the Fabrication of Memristive Devices: Impact of the Precursor on Pre-deposited Stack Materials" (capítulo de libro)

Cynthia P. Quinteros, Alex Hardtdegen, Mariano Barella, Federico Golmar, Félix Palumbo, Javier Curiale, Susanne Hoffmann-Eifert and Pablo Levy

Capítulo 1 del libro "New Uses of Micro and Nanomaterials", Edited by Marcelo Rubén Pagnola, Co-editors: Jairo Useche Vivero and Andres Guillermo Marrugo, IntechOpen Limited, London, United Kingdom (2018) [abstract,doi]