CURRICULUM VITÆ

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Situación laboral actual:

- Investigador en Comisión Nacional de Energía Atómica (cat.TNG 322 -Principal B) , desempeña actividades en investigación básica en el Grupo Materia Condensada, Unidad Física, Centro Atómico Constituyentes.
- Miembro de la Carrera del Investigador Científico, CONICET, Categoría Independiente.

Perfil en Investigación:

- Líder del Proyecto "Manganitas" (http://www.tandar.cnea.gov.ar/grupos/solidos/peym.htm#MAN)
- Coordinador en CAC del Instituto de Nanociencia y Nanotecnología de CNEA (http://inn.cnea.gov.ar)
- Líder del Proyecto MeMO (Mecanismos de Memoria en Óxidos)
- A cargo del Laboratorio de Propiedades Eléctricas, Grupo Materia Condensada, CAC, CNEA.

Interés actual en Investigación:

Transporte eléctrico en materia condensada: estudio experimental y modelos fenomenológicos en sistemas superconductores, ferroeléctricos y magneto resistentes. Introducción controlada de defectos. AFM, CAFM. Nanoestructuras de óxidos. Memoria no volátil para dispositivos electrónicos emergentes.

Formación de recursos humanos:

- Director de Tesis de Doctorado: J.Sacanel (FCEN-UBA 5/06), M.Quintero (IT-UNSM 4/07 –TESIS PREMIO JJGiambiaggi 2008), G.Leyva (IT-UNSM 07/07), L.Granja (IT-UNSM 3/08), N.Ghenzi (en curso).

Acceda a estas Tesis en http://www.tandar.cnea.gov.ar/doctorado/Tesis/apellido.pdf

- Co Director de Tesis de Doctorado: J.Curiale (IB_CAB_CNEA –UNCuyo).
- Director de Tesis de Licenciatura en DF, FCEN-UBA: F.Gómez Marlasca (en curso), F.Capalbo (9/07), J.Curiale (3/04), L.Granja (8/02) , M.Quintero (9/02), A.Moreno (8/94); H.Ferrari (7/93).
- Co -Director de Tesis de Maestría en Instituto de Tecnología "Jorge Sábato" UNSAM, C.N.E.A. de S.Quiroga (6/06), J.Sacanell (6/01); L.Morales (6/00).
- Director de Trabajo de Laboratorio 6 y 7 DF, FCEN UBA: F.Marlasca, 12/08; J.Curiale, 8/02; L.Granja y E.Indelicato, 3/99; M.Graña y R.Jinkis,12/95, D.G.Codner y H.Ferrari (3/92).

Publicaciones con Referato (http://www.tandar.cnea.gov.ar/grupos/solidos/manganitas/Preprints/)

Letters y Rapids:

- "Nanoscale caliper for direct measurement of scanning force microscopy probes"; F.Biscarini and P.Levy, Appl. Phys. Lett. 71(1997) 888.
- "Novel dynamical effects and persistent memory in phase separated manganites", P.Levy, F.Parisi, L. Granja, E.Indelicato and G.Polla, Phys.Rev.Lett. 89, 137001 (2002).
- "Nonvolatile magnetoresistive memory in phase separated $La_{0.325}Pr_{0.300}Ca_{0.375}MnO_3$", P. Levy, F.Parisi, M.Quintero, L.Granja, J.Curiale, J.Sacanell, G.Leyva, G.Polla, R.S. Freitas and L.Ghivelder, Phys.Rev.B 65, R140401 (2002).
- "Nanotubes of rare earth manganese oxide", P. Levy, A.G.Leyva, H.E.Troiani and R.D.Sánchez, Appl. Phys. Lett. 83, 5247 (2003).
- "Spatially Correlated Charge Transport in Organic Thin Film Transistors", F.Dinelli, M.Murgia, P.Levy, M. Cavallini, F.Biscarini and D.M. de Leeuw , Phys. Rev. Lett. 92, 116802 (2004).
- "Simultaneous electric and magnetic field induced non-volatile memory", M.Quintero, A.G.Leyva and P.Levy, Appl. Phys. Lett. 86, 242102 (2005).
- "Room temperature ferromagnetism in nanoparticle assembled nanotubes", J. Curiale, R.Sánchez, H.Troiani, G. Leyva and P. Levy, Appl. Phys. Lett. **87**, 043113 (2005).
- "High resolution determination of ferromagnetic metallic limit in epitaxial $La_{1-x}Ca_xMnO_3$ films on $NdGaO_3$", D. Sanchez, L.E. Hueso, L. Granja, P. Levy, N.D. Mathur, Appl. Phys. Lett. **89**, 142509 (2006).
- "Evidences of a consolute critical point in the Phase Separation regime of $La_{5/8-y}Pr_yCa_{3/8}MnO_3$ single crystals", G. Garbarino, C. Acha, P. Levy, T. Y. Koo and S-W.Cheong, Phys.Rev. B 74-R100401 (2006).
- "Mechanism of Electric-Pulse-Induced Resistance Switching in Manganites", M.Quintero, P.Levy, A.G. Leyva, and M.J.Rozenberg, Phys. Rev.Lett. **98**, 116601 (2007).
- "Magnetic dead layer in ferromagnetic manganite nanoparticles", J. Curiale, M. Granada, H. E. Troiani, R. D. Sánchez, A. G. Leyva, P. Levy and K. Samwer, Appl. Phys. Lett. 95, 043106 (2009);

Plain Papers (posteriores a 1999):

"Controlled Phase Separation in $La_{1/2}Ca_{1/2}MnO_3$" **P. Levy**, F. Parisi, G. Polla, D. Vega, G. Leyva, H. Lanza, L.Ghivelder and R.F.Freitas, Phys.Rev. B 62, 6437 (2000).

"Suppression of matching field effects by splay and pinning energy dispersion in $YBa_2Cu_3O_7$ with columnar defects", D.Niebieskikwiat, A.Silhanek, L. Civale, G.Nieva, **P. Levy**, L.Krusin-Elbaum, Phys. Rev. B 63, 144504 (2001).

"Magnetoresistance Induced by Low-Field Control of Phase Separation in $La_{1/2}Ca_{1/2}MnO_3$", F.Parisi, **P.Levy**, L. Ghivelder, G.

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"Magnetization studies of phase separation in $La_{1/2}Ca_{1/2}MnO_3$", R.S. Freitas, L. Ghivelder, F. Parisi and **P. Levy**, Phys. Rev. B 65, 104403 (2002).

"Microwave assisted synthesis of manganese mixed oxide nanostructures using plastic templates", A.G.Leyva, P.Stoliar, M.Rosenbusch, V.Lorenzo, **P. Levy**, C.Albonetti, M.Cavallini, F.Biscarini, H.E.Troiani, J.Curiale and R.D.Sanchez, J. of Solid State Chemistry 177 (2004) 3949–3953.

"Abrupt field-induced transition triggered by magnetocaloric effect in phase-separated manganites", L.Ghivelder, R.Freitas, M.das Virgens, M.Continentino, H.Martinho, L.Granja, M.Quintero, A. G. Leyva, **P. Levy** and F. Parisi ,
Phys. Rev. B 69, 214414 (2004).

"Weak localization effects in some metallic perovskites", G.Herranz, F.Sánchez, B.Martínez, J.Fontcuberta, M.García Cuenca, C.Ferrater, M.Varela and P. Levy, Eur.Phys.J.B 40, 439(2004).

"The electrical current effect in phase separated $La_{5/8-y}Pr_yCa_{3/8}MnO_3$: Charge order melting vs. Joule heating", J. Sacanell, G.Leyva and P. Levy, J. Appl. Phys 98, 113708 (2005).

"Spintronic investigation of the phase separated manganite (La,Ca)MnO3", L.E Hueso, L. Granja, P.Levy, N.D. Mathur, Journal of Applied Physics 100, 023903 (2006).

"Magnetism of manganite nanotubes constituted by assembled nanoparticles", J.Curiale, R.Sánchez, H.Troiani, C.Ramos, H.Pastoriza, A.G.Leyva and P. Levy, Phys.Rev. B 75, 224410 (2007).

Phase diagram of $La_{5/8-y}Nd_yCa_{3/8}MnO_3$ manganites**,** J**.**Sacanell, P**.**Levy, G**.**Leyva, F**.**Parisi and L**.**Ghivelder**,** *J. Phys.: Condens. Matter* 19 186226 (2007).

"Effect of disorder on the temperature dependence of the resistivity of $SrRuO_3$",G.Herranz,V.Laukhin, F.Sánchez, P.Levy, C.Ferrater, M.GarcíaCuenca, M.Varela and J.Fontcuberta, Phys.Rev.B 77 , 165114 (2008).

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"Mechanism for bipolar resistive switching in transition metal oxides", M.Rozenberg, M.J.Sanchez, R. Weht, C. Acha, F.GMarlasca and P. Levy, Phys.Rev. B 81,115101(2010).

"Hysteresis Switching Loops in Ag manganite memristive interfaces", N.Ghenzi, M.J.Sánchez, F.GMarlasca, P. Levy and M.Rozenberg, J. Appl. Phys.107, 093719 (2010).

Controlled Resistive Switching at Reduced Stimulus
F. Gomez-Marlasca, N.Ghenzi and P. Levy *(to be submited)*

Conference Papers (posteriores a 2001):

" Structural, electrical and magnetic characterization of La1/2Ca1/2MnO3 thin films grown by pulsed laser deposition", D.Rubi, S.Duhalde, M.C.Terzzoli, G.Leyva, G.Polla, P. Levy, F.Parisi and R.Urbano, Physica B 320, 86 (2002).

" Correlation between magnetic and transport properties of phase separated La1/2Ca1/2MnO3", J. Sacanel, P. Levy, L.Ghivelder and F.Parisi, Physica B 320, 90 (2002).

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" Persistent magnetoresistive memory in phase separated manganites", P. Levy, F.Parisi, M.Quintero, L. Granja, J.Curiale, J.Sacanell, G.Leyva, G.Polla, R. Freitas, L.Ghivelder, C.Acha, T.Y.Koo, and S.-W. Cheong, Journal of Magn.and Mag.Mat. 258, 293 (2003).

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" Synthesis route for obtaining manganese oxide based nanostructures", A.G. Leyva, P.Stoliar, M.Rosenbusch, P. Levy , J.Curiale , H.Troiani, R.D.Sanchez, Physica B 354, 158 (2004).

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" Characterization of the charge order to ferromagnetic crossover behavior in (La1-yPry)0.5Ca0.5MnO3", J. Curiale, C.Ramos, P.Levy, R.Sánchez, F. Rivadulla, J. Rivas, Physica B 354, 47 (2004).

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"Current-induced effects in La5/8-yPryCa3/8MnO3 (y=0.35) single crystals", G. Garbarino, M.Monteverde, C.Acha, P. Levy, M.Quintero, T.Y.Koo, S.-W.Cheong, Physica B 354, 16 (2004).

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"Study of phase separation through the charge order to ferromagnetic crossover in (LayPr1-y)0.5Ca0.5MnO3", J.Curiale, C.Ramos, P.Levy, R. Sánchez, G.Aurelio and F. Rivadulla, Physica B 384, 65 (2006).

" Relationship between the synthesis parameters and the morphology of manganite nanoparticle-assembled nanostructures, A.Leyva, H.Troiani, C.Curiale, R.Sanchez and P.Levy, Physica B 398 (2007)344 –347

"Electric transport properties of metal/$La_{0.70}Ca_{0.30}MnO_3$ interfaces", L. Granja, L. Hueso, M. Quintero, P. Levy and N. Mathur. *Physica B 398 (2007) 235.*
" Correlation between electrical and magnetic properties of phase separated manganites studied with a General Effective Medium Model", J. Sacanell, M. Quintero, F. Parisi, L. Ghivelder, G. Leyva, P. Levy, *Physica B 398 (2007) 238-240.*

"Study of magnetic properties of $La_{2/3}Sr_{1/3}MnO_3$ nanotubes by Monte Carlo simulation", A.Cuchillo,P.Vargas,P.Levy,R.Sánchez, J.Curiale, A.G.Leyva, H.Troiani, *JMMM 320, 14, (2008) 331.*

"Resistance switching in silver – manganite contacts", F Gomez-Marlasca and P Levy, J. Phys.: Conf. Ser. 167, (2009) 012036.

"Electric and magnetic properties of PMMA/manganite composites", C. Artale, S.Fermepin, M.Forti, M.Latino, M. Quintero, L. Granja, J. Sacanell, G.Polla and P.Levy, Physica B 404 (2009) 2760–2762

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