

**A.- MAGNETIC AND SUPERCONDUCTING MATERIALS**

1.- *Thermal and Mechanical Effects on the Properties of YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub>- Deposits Obtained by Electrodeposition of Precursors in Presence of Cyanide.*

**Physica C**, 276, (1997), pp. 251-258.

S. Ondoño-Castillo and N. Casañ-Pastor.

2.- *Electrochemical Oxidation of La<sub>2</sub>CuO<sub>4</sub> in Fused Nitrates.*

**Physica C**, 278, (1997), pp. 149-159.

C.R. Michel and N. Casañ-Pastor.

3.- *Barium incorporation in c-axis oriented YBCO thin films deposited by metalorganic chemical vapour deposition.*

**Physica C**, 288, (1997), pp. 1-9.

M. Doudkowsky, J. Santiso, S. Berton, A. Figueras and J. Bassas.

4.- *Growth rate dependence of the critical currents in directionally solidified YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub>-Y<sub>2</sub>BaCuO<sub>5</sub> superconducting bars.*

**Physica C**, 290, (1997), pp. 161-169.

R. Yu, V. Gomis, N. Vilalta, F. Sandiumenge, B. Martínez, S. Piñol and X. Obradors.

5.- *Formation of -Fe<sub>2</sub>O<sub>3</sub> Isolated Nanoparticles in a Silica Matrix.*

**Langmuir**, 13 (14), (1997), pp. 3627-3634.

F. del Monte, M.P. Morales, D. Levy, A. Fernández, M. Ocaña, A. Roig, E. Molins, K. O'Grady and C.J. Serna.

6.- *Reduction of the Jahn-Teller distortion at the insulator-to-metal transition in mixed valence manganites.*

**Physical Review B**, 55 (1), (1997), pp. 34-37.

J.L. García-Muñoz, M. Suaaidi, J. Fontcuberta and J. Rodríguez-Carvajal.

7.- *Magnetic frustration in mixed valence manganites.*

**Physical Review B**, 55 (2), (1997), R668-R671.

J.L. García-Muñoz, J. Fontcuberta, B. Martínez, A. Seffar, S. Piñol and X. Obradors.

8.- *Charge localization, magnetic order, structural behavior, and spin dynamics of  $(La Tb)_{2/3}Ca_{1/3}MnO_3$  manganese perovskites probed by neutron diffraction and muon spin relaxation.*

**Physical Review B**, 56 (6), (1997), pp. 3317-3324.

J.M. De Teresa, C. Ritter, M.R. Ibarra, P.A. Algarabel, J.L. García-Muñoz,

J. Blasco, J. García and C. Marquina.

9.- *Pressure dependence of the metal-insulator transition in magnetoresistive manganites.*

**Physical Review B**, 56 (16), (1997), pp. R10009-R10012.

V. Laukhin, J. Fontcuberta, J.L. García-Muñoz and X. Obradors.

10.- *Normalization factors for magnetic relaxation of small-particle systems in a nonzero magnetic field.*

**Physical Review B**, 55 (14), (1997), pp. 8940-8944.

Ll. Balcells, O. Iglesias and A. Labarta.

11.- *Interface pinning in high  $T_c$  high  $J_c$   $Nd_{1+x}Ba_{2-x}Cu_3O_y$  directional solidified in air.*

**Applied Physics Letters**, 71(3), (1997), pp. 413-415.

R. Yu, F. Sandiumenge, B. Martínez, N. Vilalta and X. Obradors.

12.- *Stability and evolution of stacking faults in melt textured  $YBa_2Cu_3O_{7-x}$ .*

**Applied Physics Letters**, 70 (16), (1997), pp. 2192-2194.

F. Sandiumenge, N. Vilalta, Y. Maniette and X. Obradors.

13.- *Precipitate size refinement by  $CeO_2$  and  $Y_2BaCuO_5$  additions in directionally solidified*

**Journal of Materials Research**, 12 (1), (1997), pp. 38-46.

N. Vilalta, F. Sandiumenge, S. Piñol and X. Obradors.

14.- *Surface Effects in Fe-based Nanocrystalline Alloys.*

**Journal of Applied Physics**, 81 (8), (1997), pp. 4652-4654.

A. Slawska-Waniewska, A. Roig, E. Molins, J.M. Grenèche and R. Zuberek.

15.- *Effect of a transverse magnetic field on resonant magnetization tunnelling in high-spin molecules.*

**Journal of Applied Physics**, 81 (8), (1997), pp. 3978-3980.

J.R. Friedman, M.P. Sarachik, J.M. Hernández, X.X. Zhang, J. Tejada, E. Molins and R. Ziolo.

16.- *Competing magnetic interactions in manganese perovskites.*

**Journal of Applied Physics**, 81, (1997), pp. 5481-5483.

J. Fontcuberta, J.L. García-Muñoz, M. Suaaidi, B. Martínez, S. Piñol and X. Obradors.

17.- *Field mapping characterization for axially magnetized, superconducting cylinders in the remanent critical state: theory and experiment.*

**Journal of Applied Physics**, 82 (6), (1997), pp. 3035-3041.

Th. Klupsch, Th. Strasser, T. Habisreuther, W. Gawalek, S. Gruss, H. May, R. Palka and

F.J. Mora-Serrano.

18.- *Calculation of levitation forces in permanent magnet-superconductor systems using finite element analysis.*

**Journal of Applied Physics**, 82, (1997), pp. 837.

D. Camacho, J. Mora, J. Fontcuberta and X. Obradors.

19.- *Microstructure, irreversibility line and flux dynamics in plastically deformed directionally*