

Journal of Materials Research

Articles in the April 1991 Issue (Vol. 6, No. 4)

A Mathematical Model for Chemical Vapor Infiltration with Microwave Heating and External Coolings, by Deepak Gupta and James W. Evans.

A Model for the Effect of Line Width and Mechanical Strength on Electromigration Failure of Interconnects with "Near-Bamboo" Grain Structures, by E. Arzt and W.D. Nix.

A Powder X-Ray Diffraction Study of a Solution Treated and Ice Brine Quenched Al-14.25 at. % Li Alloy, by A.G. Fox, S.C. Fuller, C.E. Whitman, and V. Radmilovic.

A TEM Study of the Microstructures Formed during the Crystallization of Ni-Zr Metallic Glasses, by R. Allem, G. L'Esperance, Z. Altounian, and J.O. Ström-Olsen.

Analysis of Depth Profiles of Sol-Gel Derived Multilayer Coatings by Rutherford Backscattering Spectrometry and by Cross-Sectional TEM, by Carol L. Schutte, Patrick M. Smith, and George M. Whitesides.

Corrosion of Polycrystalline ZnSe by Alternating High Voltage in a Saline Solution, by Joseph King.

Deposition Characteristics and Microstructures of the High T_c Superconducting Y₁Ba₂Cu₃O_{7-x} Thin Films Prepared by MOCVD, by Sang Ho Kim, Chang Hyun Cho, Kwang Soo No, and John S. Chun.

Diffraction Studies on Ni-Co and Ni-Cr Alloy Thin Films, by A.R. Sethuraman, R.J. De Angelis, and P.J. Reucroft.

Effect of Surfactant on Casting Metalorganic Films and Writing Copper Metal Patterns, by C.T. Lin, H.Y. Lee, and M.A. Souto.

Effects of Quench Rate on the Microstructure in Melt-Spun Nd-Fe-B Alloys, by A. Zaluska, Yan Xu, Z. Altounian, J.O. Ström-Olsen, R. Allem, and G. L'Esperance.

First Principles Investigation of Hydrogen Embrittlement in FeAl, by C.L. Fu and G.S. Painter.

High Resolution Electron Microscopy of Ion-Irradiated GdBa₂Cu₃O₇, by G. van Tendeloo, M-O. Ruault, H. Bernas, and M. Gasgnier.

Interfacial Reactions in Polyimide/Metal Systems, by Fabio Iacona, Marco Garilli, Giovanni Marletta, Orazio Puglisi, and Salvatore Pignataro.

Ionic Transport in LiNbO₃, by Apurva Mehta, Edward K. Chang, and Donald M. Smyth.

Laser Interferometric Measurement of the Surface Tension of Thin Foils, by Gregory A. Jablonski and Albert Sacco Jr.

LFZ Growth of (Bi,Pb)-Sr-Ca-Cu-O Superconducting Fibers, by G.F. De La Fuente, R. Navarro, F. Lera, C. Rillo, J. Bartolomé, A. Badia, D. Beltrán, R. Ibáñez, A. Beltrán, and E. Sinn.

Plasma Modification of Polyvinyltoluene and Polystyrene Lattices, by C.J. Zimmermann, N. Ryde, N. Kallay, R.E. Partch, and E. Matijević.

Preparation and Characterization of Uniform Submicrometer Metal Niobate Particles, Part I, Lead Niobate, by Myung Jin Kim and Egon Matijević.

Preparation of Copper Compounds of Different Compositions and Particle Morphologies, by Stanka Kratochvil and Egon Matijević.

Reactive Coevaporation of YBaCuO Superconducting Films, by V. Matijasevic, P. Rosenthal, K. Shinohara, A.F. Marshall, R.H. Hammond, and M.R. Beasley.

Solid State Reactions of SiC with Co, Ni, and Pt, by T.C. Chou, A. Joshi, and J. Wadsworth.

Sputtering Synthesis and Properties of Molybdenum Nanocrystals and Al/Mo Layered Nanocomposites, by G.M. Chow, A. Pattnaik, T.E. Schlesinger, R.C. Cammarata, M.E. Twigg, and A.S. Edelstein.

Structure and Composition Characterization of Submicronic Mullite Whiskers, by N. Merk and G. Thomas.

Structure of Twinned [113] Defects in High-Dose Oxygen Implanted Silicon-on-Insulator Material, by Supapan Visitserngrakul, Stephen J. Krause, and John C. Barry.

Surface Planarity and Microstructure of Low Temperature Silicon SEG and ELO, by M.C. Arst, K.N. Ritz, S. Redkar, J.O. Borland, J.Hann, and J.T. Chen.

Synthesis of Superconductors from Metal Neodecanoates, by T.N. Bowmer and F.K. Shokoohi.

Tetragonal to Orthorhombic Transformation during Mullite Formation, by Dong X. Li and William J. Thomson.

The Transport Properties of Activated Carbon Fibers, by S.L. di Vittorio, M.S. Dresselhaus, M. Endo, J-P. Issi, L. Piraux, and V. Bayot.

Tribological Properties of Metals Modified by Ion-Beam Assisted Deposition of Silicone Oil, by Y. Itoh, S. Hibi, T. Hioki, and J. Kawamoto.

Send manuscripts for consideration in JMR to any one of the following:

- Dr. Walter L. Brown, Editor-in-Chief, Journal of Materials Research, Materials Research Society, 9800 McKnight Road, Pittsburgh, PA 15237; telephone (412) 367-9111; fax (412) 367-4373.
- Dr. Werner Lutze, Kernforschungszentrum Karlsruhe, Postfach 3640, D-7500 Karlsruhe, West Germany; telephone 49-7247-824457; fax 49-7247-823927.
- Prof. Shigeyuki Sōmiya, Nishi Tokyo University, 3-7-19 Seijo, Setagaya, Tokyo 157, Japan; telephone 81-3-417-2866; fax 81-3-415-6619.