

**Journal of Materials Research**  
**Articles in the September 1990 Issue (Vol. 5 No. 9)**

**Articles**

Ion Beam Analysis of Laser-Deposited High  $T_c$   $YBa_2Cu_3O_x$  Superconducting Thin Films, by Rajiv K. Singh and J. Narayan.

A Search for a Low Temperature Phase Transition Prior to Superconducting Behavior in the  $YBa_2Cu_3O_x$  Compound, by M.A. Rodriguez, D.P. Matheis, S.S. Bayya, J.J. Simmins, R.L. Snyder, and D.E. Cox.

Synthesis of  $YBa_2Cu_3O_{7-x}$  Fibers from an Organic Acid Solution, by S.C. Zhang, G.L. Messing, W. Huebner, and M.M. Coleman.

Preparation of Cu-Y-Ba Alloys by Mechanical Alloying, by E. Batalla and E.G. Zwartz.

A Comparison of the Modulated Microwave Absorption Spectra of Ceramic and Powdered  $YBa_2Cu_3O_{7-d}$  Samples, by R.S. Rubins, Stuart L. Hutton, John E. Drumheller, D.Y. Jeong, and T.D. Black.

Grain Growth and the Microstructural Effects on the Properties of  $YBa_2Cu_3O_{7-y}$  Superconductor, by C.T. Chu and B. Dunn.

Effect of Microcracking on the Measured Moduli of Bulk  $YBa_2Cu_3O_x$ , by D.J. Holcomb and M.J. Mayo.

Influence of Growth Parameters on the Microstructure of Directionally Solidified  $Bi_2Sr_2CaCu_2O_y$ , by M.J. Cima, X.P. Jiang, H.M. Chow, J.S. Haggerty, M.C. Flemings, H.D. Brody, R.A. Laudise, and D.W. Johnson.

Critical Current Density of (Bi,Pb)-Sr-Ca-Cu-O Filament Prepared by Suspension Spinning Method, by Tomoko Goto and Tamotsu Maruyama.

Degradation of High- $T_c$  Superconductors by Annealing in Dry and Moist Atmospheres, by W-K Lee and A.S. Nowick.

Ion Beam Mixing of  $La(OH)_3/Cu$  Bilayers, by J.P. Mathevet, A. Traverse, J. Chaumont, M. Gasgnier, and S. Megtert.

Formation Route of Higher Member Phases from Lower Ones in the Tl-Ca-Ba-Cu-O System, by C.T. Cheung and E. Ruckenstein.

A Structural and Calorimetric Study of the Transformations in Sputtered Al-Mn and Al-Mn-Si Films, by L.C. Chen, F. Spaepen, J.L. Robertson, S.C. Moss, and K. Hiraga.

Characterization of Metallurgical Grade Silicon, by J.C. Anglézio, C. Servant, and F. Dubrous.

Compatibility of Fe-40Al With Various Fibers, by S.L. Draper, D.J. Gaydos, M.V. Nathal, and A.K. Misra.

Kinetic Mechanisms for Mullite Formation from Sol-Gel Precursors, by Dong X. Li and William J. Thomson.

Surface Morphology of Oxygen-Implanted Wafers, by Sadao Nakashima and Katsutoshi Izumi.

Nucleation in the Multicrystalline "Polix" Silicon Ingot, by P. Andonov, P. Dervin, and P. Lay.

Variation of Dislocation Morphology with Strain in  $Ge_xSi_{1-x}$  Epilayers on (100)Si, by E.P. Kvam, D.M. Maher, and C.J. Humphreys.

The Pyrolysis Process of a Polytitanocarbosilane into SiC/TiC Ceramics: An XPS Study, by G.D. Sorarù, A. Glisenti, G. Granozzi, F. Babonneau, and J.D. Mackenzie.

Solid State Reactions between  $Ni_3Al$  and SiC, by T.C. Chou and T.G. Nieh.

High-Resolution Electron Microscopy of Metal/Metal and Metal/Metal-Oxide Interfaces in the Ag/Ni and Au/Ni Systems, by Y. Gao and Karl L. Merkle.

Stabilization and Hyperfine Characterization of Metastable Tetragonal  $ZrO_2$ , by M.C. Caracoché, M.T. Dova, and A.R. López García.

Effect of MnO on the Microstructures, Phase Stability, and Mechanical Properties of Ceria-Partially-Stabilized Zirconia (Ce-TZP) and Ce-TZP- $Al_2O_3$  Composites, by J.S. Wang, J.F. Tsai, D.K. Shetty, and A.V. Virkar.

Nanocrystalline Titanium-Magnesium Alloys Through Mechanical Alloying, by C. Suryanarayana and F.H. Froes.

Neutron Rietveld Refinement of the Structure of the Ternary Silicide  $Ti_3Ni_4Si_7$ , by E. Horache, T.P. Feist, J.A. Stuart, and J.E. Fischer.

Optical Propagation Loss Reduction in ZnO Thin Films under  $CO_2$  Laser Treatment, by M. Bertolotti, A. Ferrari, M.V. Laschena, M. Rossi, L.S. Qian, F. Quaranta, and A. Valentini.

The Spontaneous Polarization as Evidence for Lithium Disorder in  $LiNbO_3$ , by Dunbar P. Birnie III.

**Reviews**

Tungsten Wire for Incandescent Lamps, by John L. Walter and Clyde L. Briant.

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# 1990

# Fall Meetings

November 25-  
December 1,  
1990



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