

Table of Contents

Preface

Compositions, Structure and Glass-Forming Ability of Bulk Glassy Alloys A. Inoue and A. Takeuchi	1
Crystallization of Fe-Based Amorphous Alloys Studied In-Situ Using Synchrotron Radiation D.S. dos Santos and D.R. dos Santos	13
Rapidly Solidified Bulk Al Alloys from a New Centrifugal Force Casting R.A. Mesquita, D.R. Leiva, A. Le Moulec, A.R. Yavari and W.J. Botta Filho	21
Quasicrystalline Al-Based Alloys by Physical Laser Deposition J. Copola, F. Audebert and S. Duhalde	27
Mechanical Alloying of Mg₅₀Ni₅₀ under Hydrogen A.L.M. Costa, S.F. Santos, W.J. Botta Filho and T.T. Ishikawa	33
Electrodeposition of Amorphous Fe-Cr-P-Ni-C Alloys. Morphological and Structural Characteristic C.A.C.d. Souza, I.A. Carlos and E.D. Bidoia	39
Formation of Novel Microstructures by Spray Deposition Process C.S. Kiminami, C. Bolfarini and W.J. Botta Filho	45
Chemical Synthesis and Characterization of a Nanometric Fe₅₀Ni₅₀ Alloy R. Bolsoni, V. Drago and E. Lima Jr	51
Nanosize Ni_{0.7}Zn_{0.3}Fe₂O₄ Powders Prepared by Combustion Synthesis, Sintering and Characterization A.C.F. de Melo Costa, E. Tortella, M.R. Morelli and R.H.G.A. Kiminami	57
Ceramic Processing of Nanometric Powders Obtained by Reactive Milling E.M.J.A. Pallone, V. Trombini, W.J. Botta Filho and R. Tomasi	65
Preparation of Zinc Oxide Nanopowder by Freeze-Drying F.F. Machado, E.J. Fodran, M.J. Kaufman and R.H.G.A. Kiminami	71
Processing of Barium Hexaferrite by High Energy Milling P.I. Paulin Filho and R.R. Corrêa	77
Miscibility and Morphology of PVDF/P(VDF-TrFE) Blends L.M.P. Pinheiro, M.R. Chaud, R. Gregório Filho and P.A.P. Nascente	83
Poly(Ethylene Terephthalate)-Organoclay Nanocomposites: Morphological Characterization L.F. Boesel and L.A. Pessan	89
Microstructural Characterization of Spray Deposited Al-Y-Ni-Co-Zr Alloy and Al-Y-Ni-Co-Zr + SiC_p Metal Matrix Composite C.R.M. Afonso, C.S. Kiminami, C. Bolfarini and M.J. Kaufman	95
The “Big-Cube” Phase Found in Zr-Cu-Al-Ni Easy Glass Forming Alloys M.F.d. Oliveira, M.J. Kaufman, W.J. Botta Filho and C.S. Kiminami	101
Planar Waveguides Based on Nanocrystalline and Er³⁺ Doped SnO₂ R.R. Gonçalves, M. Ferrari, A. Chiasera, M. Montagna, E.A. Morais, L.V.A. Scalvi, C.V. Santilli, Y. Messaddeq and S.J.L. Ribeiro	107
Microstructure and Magnetic Properties of Co Films on Si: Thickness and Roughness Dependence H.B. de Carvalho, M.J.S.P. Brasil, M. Knobel and M.A. Cotta	111
Magnetic and Magnetotransport Properties of Nanostructured Magnetic Materials M. Knobel, J.C. Denardin and A.L. Brandl	117
On the Magnetic Properties of Mechanothesized and Ball-Milled Spinel Ferrites G.F. Goya and H.R. Rechenberg	127
Some Design Considerations on Industrial Applications of Amorphous and Nanocrystalline Alloys B.A. Luciano, M.K.A. Guimarães and W.B. de Castro	133