

Table of Contents

Synthesis of High Strength Bulk Nanocrystalline Alloys Containing Remaining Amorphous Phase K.B. Kim, C. Fan and A. Takeuchi	1
Influence of Oxygen on Nanocrystallization of Zr-Based Metallic Glasses U. Köster, A. Rüdiger and J. Meinhardt	9
In-situ Detection of the Onset Crystallisation of $Zr_{55}Cu_{30}Al_{10}Ni_5$ from the Bulk Glass and the Liquid States Using Synchrotron Radiation A.R. Yavari, J. Uriarte, K. Tousimi, A. Le Moulec, W.J. Botta Filho, K.B. Kim, P. Rejmankova and Å. Kvick	17
Nucleation of Quasicrystals in Bulk Glass Forming Zr-Cu-Ni-Al Alloys D. Zander, R. Janlewing, A. Rüdiger and U. Köster	25
Oxygen Distribution in $Zr_{65}Cu_{15}Al_{10}Pd_{10}$ Nanocrystalline Alloys D.H. Ping, K. Hono and K.B. Kim	31
Thermodynamics of an Amorphous Alloy Studied by Drop Calorimetry and DSC M. Baricco, A. Castellero, P. Rizzi, G. Riontino and L. Battezzati	37
A Comparison between Electronic Properties of Metallic Ordered Compounds, Amorphous and Quasicrystals Phases F. Cyrot-Lackmann	43
Processing and Characterization of Zr-Based Bulk Amorphous Alloys L. Nguyen, A. Le Moulec, W.J. Botta Filho and A.R. Yavari	47
Magnetic Properties and Microstructure of Nanocrystalline Fe-Based Alloys Y. Yoshizawa	51
Primary Crystalline Phase Nucleation Regime in Amorphous Alloys is Non-Steady-State A.R. Yavari and D. Negri	63
APFIM Studies of Nanocomposite Soft and Hard Magnetic Materials K. Hono and D.H. Ping	69
On the Curie Temperature of the Residual Amorphous Matrix and Superparamagnetism in Fe-Zr-Cu-B Nanocrystalline Alloys R. Grössinger, R. Sato Turtelli, M. Schwetz and H. Sassik	75
Nanocrystallisation in Finemet Alloys with Different Si/B Ratios T. Pradell, D. Crespo, N. Clavaguera and M.T. Clavaguera-Mora	83
Stress Induced Anisotropy and Magnetostriction in $Fe_{73.5}B_7Cu_1Nb_3Si_{15.5}$ Alloy: Interface Effects F. Alves, R. Barrué, M. Delage, J.B. Desmoulins, N. Lécaudé and J.C. Perron	89
Nanocrystallization Process in FeCuNbSiB Based Alloys A. Khalladi, Z. Tong, S. Suriñach, A. Tonejc and M.D. Baró	95
Electron Transport as a Probe of Crystallization Kinetics in Metallic Glasses K. Pekała and P. Jaśkiewicz	101
FMR Study of Crystallization in the Metglas 2605SM Amorphous Alloy R.S. de Biasi and D.S. dos Santos	107
Crystallization Kinetics of Metallic Glasses on a Nanometer Scale H.U. Hermann	113
Nanocrystallisation of Fe-Based Amorphous Alloys S.D. Kaloshkin	119
Nanocrystallization of Metallic Glasses under Different Conditions N.I. Noskova, A.P. Potapov and V.A. Lukshina	125
Temperature Dependence of the Magnetostriction in α-$Fe_{100-x}Si_x$ and FINEMET Type Alloys R. Grössinger, R. Sato Turtelli, V.H. Duong, C. Kuß, C. Polak and G. Herzer	135
Nanocrystalline Materials Manufactured by Advanced Solidification Processing Methods B. Cantor	143
Study of Magnetic Properties of Joule Heated Granular Co_xCu_{100-x} Ribbons D. Fiorani, A.M. Testa, E. Agostinelli, P. Imperatori, R. Caciuffo, D. Rinaldi, P. Tiberto, F. Vinai and P. Allia	153

Interfaces, Surfaces and Grain Boundaries in Nanophase Materials Evidenced by Mössbauer Spectrometry J.M. Grenèche	159
Alloying Reaction between Nanometer-Sized Indium and Gold Particles at Reduced Temperatures H.Y. Yasuda and H. Mori	167
Distribution of Co Particles in Co-Al-O Granular Thin Films M. Ohnuma, K. Hono, H. Onodera, J.S. Pedersen, S. Mitani and H. Fujimori	171
Growth Control and Properties of Si Nanograins Embedded in either Amorphous Silicon or SiO₂ Matrix R. Rizk	177
Bulk Nanostructured Metastable Alloys Prepared by Severe Plastic Deformation V.V. Stolyarov and R. Valiev	185
Grain-Boundary Structure in Nanocrystalline Ball-Milled FeRh A. Hernando, E. Navarro, A.R. Yavari, D. Fiorani and M. Rosenberg	191
Nanocrystalline Mg-Ni-Based Hydrogen Storage Alloys Produced by Nanocrystallization T. Spassov and U. Köster	197
Rotating Bending Fatigue Behavior of Quasicrystal-Reinforced Al Alloys V. Haas, M.I. Cho, H. Ishii and K.B. Kim	203
The Deformation and Peculiarities of the Destruction of Nanophase Materials N.I. Noskova, R.A. Andrievski and V. Ivanov	211
Magnetic Properties of Iron Nanoparticles in Submicrocrystalline Copper A. Rempel and S.Z. Nazarova	217
Microstructure, Conductivity and Hardness of Cu and Ag-Based Compacts with Immiscible Elements K. Tousimi, A.R. Yavari, J.H. Ahn and A. Sulpice	223