

Table of Contents

Preface

Magnetoelastic Nature of Ferromagnetic Shape Memory Effect V.A. Chernenko and V.A. L'vov	1
Shape Memory Alloys: A Summary of Recent Achievements P. Entel, V.D. Buchelnikov, M.E. Gruner, A. Hucht, V.V. Khovailo, S.K. Nayak and A.T. Zayak	21
Microstructure of Magnetic Shape-Memory Alloys: Between Magnetoelasticity and Magnetoplasticity P. Müllner and G. Kostorz	43
Strain Glass: Glassy Martensite Y. Wang, X.B. Ren and K. Otsuka	67
Damping Properties of SMA S. Kustov and J. Van Humbeeck	85
Magnetostrain in Multifunctional Ni-Mn Based Magnetic Shape Memory Alloys L. Mañosa, X. Moya, A. Planes, S. Aksoy, M. Acet, E.F. Wassermann and T. Krenke	111
Magnetic and Crystallographic Properties of Shape Memory Alloys $Ni_2Mn_{1+x}Sn_{1-x}$ T. Kanomata, K. Fukushima, H. Nishihara, R. Kainuma, W. Itoh, K. Oikawa, K. Ishida, K.U. Neumann and K.R.A. Ziebeck	119
Phase Diagrams of Ni_2MnX ($X = In, Sn, Sb$) Heusler Alloys with Inversion of Exchange Interaction V.D. Buchelnikov, S. Taskaev, M.A. Zagrebin and P. Entel	131
Acoustic-Assisted, Magnetic-Field-Induced Actuation of Ni-Mn-Ga Single Crystals R. Techapiesancharoenkij, S.M. Allen and R.C. O'Handley	147
Magnetocaloric Properties and Magnetic Anisotropy by Tailoring Phase Transitions in NiMnGa Alloys F. Albertini, M. Solzi, A. Paoluzi and L. Righi	169
Stress-Induced Twin Boundary Motion in Particulate Ni-Mn-Ga /Polymer Composites J. Feuchtwanger, M.L. Richard, P. Lázpita, J. Gutiérrez, J.M. Barandiarán, S.M. Allen and R.C. O'Handley	197
Structural and Mechanical Characterizations of Ni-Mn-Ga Thin Films Deposited by R.F. Sputtering and Heat-Treated F. Bernard, P. Delobelle, L. Hirsinger and C. Rousselot	213
Modeling and FEM Simulation of Shape Memory Microactuators B. Krevet and M. Kohl	229
Shape Memory Alloys: Material Modeling and Device Finite Element Simulations F. Auricchio and A. Reali	257
3D Reconstruction of Ni_4Ti_3 Precipitates in a $Ni_{51}Ti_{49}$ Alloy in a FIB/SEM Dual-Beam System S.S. Cao, W. Tirry, W. Van den Broek and D. Schryvers	277
The Crystal Structures and Transformation Mechanisms in Stoichiometric Ni_2MnGa P.J. Brown, A.P. Gandy, T. Kanomata, M. Matsumoto, K. Neumann, K.U. Neumann, A. Sheikh and K.R.A. Ziebeck	285