

Table of Contents

Synthesis and Characterization of Ba Defective ZnO Nano-Particle M. El-Hofy and A. Salama	1
Diffusion Formation of Silicide Phases in Ni/Si(001) Nanodimensional Film System S.I. Sidorenko, Y.N. Makogon, S.M. Voloshko, O.P. Pavlova, I.E. Kotenko, A.V. Mogilatenko and G. Beddies	9
Investigations of the EPR Parameters and Local Structure for one Cu²⁺ Center in CdS L.H. Wei, S.Y. Wu, Y.X. Hu and X.F. Wang	15
Slow Positron Annihilation in Ion-Implanted Silicon G. Singh, S.B. Shrivastava and M.H. Rathore	21
Semi-Empirical Parameterization of Interatomic Interactions and Kinetics of the Atomic Ordering in Ni-Fe-C Permalloys and Elinvars V.A. Tatarenko, S.M. Bokoch, V.M. Nadutov, T.M. Radchenko and Y.B. Park	29
Formation of Point Defects in Dilute FCC Alloys A. Ghorai	79
Mechanical Testing of Diffusion Bonded Metallic Hollow Sphere Structure (MHSS) C. Veyhl, R. Winkler, M. Merkel and A. Öchsner	85
Towards a Correlation between High-Temperature Creep and Volume Diffusion for Equiatomic NiTi Alloys V. Taillebot, S.V. Divinski, C. Lexcellent, J. Bernardini and D.L. Beke	97
Structural Characterisation of Diffusion-Bonded Hollow Sphere Structures C. Veyhl, R. Winkler, M. Merkel and A. Öchsner	105
Dislocation Recovery in Casting Alloy by Positron Lifetime Technique M.A. Abdel-Rahman, M.S. Abdallah, N.A. Kamel and E.A. Badawi	113
Abstracts	121