

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 |