

Table of Contents

Preface

Thermal Stability of Nanostructured Coatings

A. Fabrizi, M. Cabibbo, R. Cecchini, S. Spigarelli, C. Paternoster, M. Haidopoulos and P.V. Kiryukhantsev-Korneev

1

Anomaly in Thermal Stability of Nanostructured Materials

K.K. Nanda

23

Thermodynamic Phase Transitions in Nanometer-Sized Metallic Systems

F. Delogu

31

Prediction of Phase Diagrams in Nano-Sized Binary Alloys

T. Tanaka

55

Au-Si and Au-Ge Phases Diagrams for Nanosystems

D. Hourlier and P. Perrot

77

Grain Growth Behavior of Al_2O_3 Nanomaterials: A Review

A. Gupta, S. Sharma, M.R. Joshi, P. Agarwal and K. Balani

87

Phase Stability of Rare-Earth Based Mixed Oxides in Nano-Regime: Role of Synthesis

R. Shukla and A.K. Tyagi

131