

1. Record Nr.	UNINA9910819229003321
Titolo	Diffusion and stresses : proceedings of the International Workshop on Diffusion and Stresses, Lillafured, Hungary, September 19-22, 2006 / / edited by D. L. Beke, Z. Erdelyi and I. A. Szabo
Pubbl/distr/stampa	Switzerland : , : Trans Tech Publications Ltd, , 2007 ©2007
ISBN	3-03813-146-6
Descrizione fisica	1 online resource (181 p.)
Collana	Defect and Diffusion Forum, , 1662-9507 ; ; Vol. 264
Altri autori (Persone)	BekeD. L (Dezso L.) ErdelyiZ (Zoltan) Szabol. A
Disciplina	620
Soggetti	Diffusion Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Diffusion and Stresses; Participants; Committees; Preface; Table of Contents; Stress and Intermixing in Epitaxial Ni(111)/Mo(110) Superlattices; Redistribution of Implanted Species in Polycrystalline Silicon Films on Silicon Substrate ; Investigating Interdiffusion in Mo/V Multilayers from X-Ray Scattering and Kinetic Simulations ; Intermixing in Cu/Co: Molecular Dynamics Simulations and Auger Electron Spectroscopy Depth Profiling ; Simultaneous Measurement of Tracer Jump Frequencies on Different Sublattices in Ga7Pd3 Using PAC ; Dopant Diffusion during Amorphous Silicon Crystallization Grain Boundary Surface Tension, Segregation and Diffusion in Cu-Sn System The Stress Field in Cu-Fe-Ni Diffusion Couples; Effect of Morphology on the Mobility of Nanosized Liquid Pb Inclusions in Solid Al ; Nonlinear Field Theory of the Stress Induced Interdiffusion and Mass Transport ; Stress Evolution in Thin Films; Diffusion and Reactions; Cross Diffusion-Stresses Effects; Nanoscale Effects in Interdiffusion; Diffusion-Induced Stresses: Theory and Applications; Nonequilibrium Vacancies in Nanosystems ; Nonlinear Stress Effects in Diffusion

Stress Relaxation Mechanisms during Cd₂₁Ni₅ Intermetallic Growth under High Hydrostatic Pressure Thermal and Mechanical Stability of Polycrystalline Nanowires; On the Role of Stress, Strain and Diffusion in Dissolution - Condensation Mechanism of Liquid Metal Embrittlement ; Diffusion of Implanted Metals in Tantalum Silicide; Solid-State Reactions in Ni(10 nm)/C(2 nm)/Si(001) Thin Film System ; Influence of Annealing Environment and Film Thickness on the Phase Formation in the Ti/Si(100) and (Ti +Si)/Si(100) Thin Film Systems ; Study of Diffusion and Reaction Diffusion in the Fe-C-Nb System On the Local Equilibrium during Dissolution of a Thin FilmKeywords Index; Authors Index

Sommario/riassunto

The question of the interrelationship between diffusion and stress is almost as old as the investigation of diffusion itself. Nowadays, the study of various diffusion and solid-state reaction processes in thin films and multilayers is a vital area of research activity in which, inevitably, diffusion-induced or thermal stresses are of primary importance. This timely book covers all aspects of the interrelationship between stresses and diffusion phenomena occurring in bulk solids, thin films and multilayered materials and also those which take place at surfaces and interfaces. Such stress-effect
