Preface

Materials Research Society Symposium Proceedings

Atomic Processes in Silicon Hetero-Epitaxy p. 3

Step-driven Surface Segregation and Ordering During Si-Ge MBE Growth p. 9

The Influence of Surfactants on the Growth of Germanium Layers on Silicon Surfaces by MBE p. 17

Formation of Heterogeneous Thickness Modulations During Epitaxial Growth of LPCVD-Si[\textsubscript{1-x}]Ge[\textsubscript{x}]/Si Quantum p. 23

Heteroepitaxial Growth of Transition-Metal Nitride Films p. 29

Molecular Beam Epitaxy Study of InAs/GaSb Heteroepitaxy on the (111)A and (111)B Orientations p. 35

Scanning Tunneling Microscope Studies of Initial Epitaxial Growth of YBa[\textsubscript{2}]Cu[\textsubscript{3}]O[\textsubscript{7-[delta]}] Thin Films p. 41

A Model of Surface Misorientation Occurring During MBE of GaAs:Be p. 47

The Chemical Interaction of Disilane on Ge(100) p. 53

AFM Study of Film Growth Kinetics in Heteroepitaxy p. 59

Molecular Beam Epitaxy Growth and Structural Characterization of Si/GaAs Superlattices p. 65

Sticking and Desorption Coefficients of As[\textsubscript{4}] and As[\textsubscript{2}] During Group V and Group III Controlled MBE Growth p. 71

Initial Stages of Growth of Epitaxial InAs Films on InP Substrate p. 79

VLPCVD Heteroepitaxial Growth of Very Thin Ge-Layers on Si-Substrates p. 85

MBE Growth and Characterization of CdTe, ZnTe Epilayers and CdTe/ZnCdTe Superlattices on GaAs Substrates p. 91

Initial Studies on the Heteroepitaxial Growth of Thin Films of (Al/In)N on AlN-Seeded (00.1) Sapphire by Single-Target Reactive Magnetron Sputtering p. 95

In[\textsubscript{0.52}]Al[\textsubscript{0.48}]As Layers Grown by MBE on InP Substrates

InGaAs/GaAs Quantum Well Structures Grown by Migration-Enhanced Epitaxy p. 107

Growth of Y-Cut LiNbO[\textsubscript{3}] Layers on (actual symbol not reproducible) Al[\textsubscript{2}]O[\textsubscript{3}] p. 113

Transmission Electron Microscopy Study of Epitaxial Co/Au and Co/Pd (III) Multilayers p. 119

Low-Temperature Epitaxial Growth of GaAs on Si Substrates by MBE p. 125

Initial Stage of Solid Phase Epitaxial Growth of GaAs Films on Vicinal Si (001) Substrate p. 131

Columnar and Subsurface Silicide Growth With Novel Molecular Beam Epitaxy Technique p. 139

Films Grown on Vicinal GaAs[(actual symbol not reproducible)] Substrates by Molecular Beam Epitaxy p. 151

Relaxed Si[\textsubscript{1-x}]Ge[\textsubscript{x}] Layers on Simox Avoiding a Lattice Mismatched Heterointerface p. 157

In-situ Growth of Three-dimensionally Confined Structures on Patterned GaAs (111)B Substrates p. 163

Effect of Biaxial Stress on Solid Phase Epitaxy of Silicon p. 169

Controlled Growth of GaAs/AlAs Superlattices p. 175
Laser-assisted Growth of ZnSe by Metalorganic Molecular Beam Epitaxy p. 181
Relationship Between Self-Texture and Interfacial Restriction on the Epitaxy of ZnO Thin Films I p. 187
In-Situ Characterization of AlGaAs Layers Grown by Chemical Beam Epitaxy Using Dynamic Optical Reflectivity p. 193
Method of GaAs Growth on Single Crystal Si Substrate p. 199
Modeling of Silicon Deposition Yield at Low Temperature by ArF Excimer Laser Photolysis of Disilane p. 203
MOVPE Growth of GaAs on Si Using Tertiarybutylarsine p. 209
Epitaxial Lateral Overgrowth of Silicon on SiO[subscript 2] Investigated by X-ray Topography p. 215
Allotaxy: A New Method for Epitaxial Growth of Compound Thin Films p. 221
Heteroepitaxial Growth of Ge[subscript x]Si[subscript 1-x] Strained Layer on Si by RRH/VLP-CVD p. 227
On Microfaceting Instability of Pt(110) under Catalytic Oxidation of Adsorbed CO p. 233
Observation of the Ordered CoPt[subscript 3] Alloy in Co-Pt Multilayers p. 237
A New Method of Identifying the Interfacial Structure in the Type-B CoSi[subscript 2]/Si(111) Bicrystal p. 243
Epitaxial YSi[subscript 2-x] and ErSi[subscript 2-x] Thin Films on (111) Silicon p. 249
Interdiffusion in MBE-Grown Symmetrically and Asymmetrically Strained Si/Si[subscript 1-x]Ge[subscript x] Superlattices Investigated by Ion Scattering p. 255

In Situ Monitoring of the Smear-out of the Ge Profile in Gas Source SiGe MBE Using RHEED p. 261
Intensity Oscillations

Formation of the Interface Between InP and Arsenic Based Alloys by Chemical Beam Epitaxy p. 267
Atomic Structure of Interfaces in Epitaxial NiSi[subscript 2] on (001) Silicon p. 273
A Study of Interdiffusion, Crystallinity, Strain and Thermal Stability of Si[subscript 1-x]Ge[subscript x]/Si Created Using Pulsed Laser Induced Epitaxy (PLIE) p. 279

Van Der Waals Epitaxy of GaSe on WSe[subscript 2] p. 291
Formation of [(actual symbol not reproducible)] ZnO Films by Controlling the Self-texture and the Relaxation of Film Stress p. 297
Characterisation of Extended Defects in Si and Si[subscript 1-x]Ge[subscript x] Alloys: the Influence of Transition Metal Contamination p. 305
Real-time Femtosecond Ellipsometry of Si[subscript x]Ge[subscript 1-x] Epilayers p. 317
Differences in the Growth Mechanism of In[subscript x]Ga[subscript 1-x]As ON GaAs Studied by the Electrical Properties of Al[subscript 0.3]Ga[subscript 0.7]As/In[subscript x]Ga[subscript 1-x] Heterostructures [(actual symbol not reproducible)] p. 323

Morphology and Low Temperature Electrical Transport in Heteroepitaxial Indium Nitride Films p. 335