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Self-Organized Processes in Semiconductor Alloys

Editors: Angelo Mascarenhas, David Follstaedt, Tohru Suzuki and Bruce Joyce

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Self-Organized Processes in Semiconductor Alloys

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CONTENTS

Preface xi

Materials Research Society Symposium Proceedings xii

QUANTUM DOTS

High Resolution Analysis of Embedded Quantum Dots 3
A.J. Harvey, H.J. Davock, and P.J. Goodhew

**Computer Simulations of the Self-Organized 3-D Islanding
in Epitaxial Thin Film Systems** 9
Y.W. Zhang

***Growth Phenomena of Quantum Dot Structures in the InGaAs
System Investigated by TEM Techniques** 15
P. Werner

**Spontaneous Formation of Arrays of Strained Islands:
Thermodynamics Versus Kinetics** 23
V.A. Shchukin, N.N. Ledentsov, and D. Bimberg

Growth and Characterization of InAs Quantum Dots on Silicon 33
L. Hansen, A. Ankudinov, F. Bensing, J. Wagner, G. Ade,
P. Hinze, V. Wagner, J. Geurts, and A. Waag

**Self-Assembled III-Phosphide Quantum Dots Grown by Metalorganic
Chemical Vapor Deposition** 39
Jae-Hyun Ryou, Uttiya Chowdhury, Russell D. Dupuis, Chavva V. Reddy,
Venkatesh Narayanamurti, David T. Mathes, and Robert Hull

**Shape Reversal of Ge/Si Domes to Pyramids Via Si-Ge Intermixing
and Strain Reduction** 45
William L. Henstrom, Chuan-Pu Liu, and J. Murray Gibson

InAs Nanostructures in a Silicon Matrix: Growth and Properties 51
G.E. Cirlin, V.A. Egorov, V.N. Petrov, A.O. Golubok, N.I. Komyak,
N.K. Polyakov, Yu.B. Samsonenko, D.V. Denisov, B.V. Volovik,
V.M. Ustinov, Zh.I. Alferov, N.N. Ledentsov, R. Heitz, D. Bimberg,
N.D. Zakharov, P. Werner, and U. Gösele

*Invited Paper

MBE Growth, Structural and Optical Characterization of InAs/InGaAlAs Self-Organized Quantum Dots 57
V.M. Ustinov, A.E. Zhukov, A.R. Kovsh, N.A. Maleev, S.S. Mikhrin,
Y.G. Musikhin, A.F. Tsatsul'nikov, B.V. Volovik, D.A. Bedarev,
M.V. Maximov, D.A. Livshits, N.A. Bert, P.S. Kop'ev, Zh.I. Alferov,
N.N. Ledentsov, and D. Bimberg

Growth Temperature Dependence of Size Distribution of Self-Assembled InAs Quantum Dots on GaAs(001): From Diffusion- to Strain-Limited Growth 63
J. Yuan, G.D. Lian, Z.Y. Li, D.A. Ritchie, R.M. Thompson, A.J. Shields,
I. Farrer, and L.M. Brown

Novel STM Probe Assisted Site-Control of Quantum Dots with Nanometer Precision 71
Hitoshi Nakamura, Shigeru Kohmoto, Tomonori Ishikawa, and
Kiyoshi Asakawa

Quenching Effects in Scanning Tunneling Microscopy Studies of Epitaxial Growth 77
G.R. Bell

TEM Investigation of Self-Organized PbSe Quantum Dots as a Function of Spacer Layer Thickness and Growth Temperature 87
H.H. Kang, L. Salamanca-Riba, M. Pinczolits, G. Springholz,
V. Holy, and G. Bauer

Evolution of the Shape and Size of InGaAs Self-Organized Quantum Dots 93
Qianghua Xie, J.L. Brown, R.L. Jones, and J.E. Van Nostrand

Photoreflectance Investigation of InAs/GaAs Self-Assembled Quantum Dots Grown by ALMBE 99
M. Geddo, R. Ferrini, G. Guizzetti, M. Patrini, S. Franchi,
and P. Frigeri

Nano-Photoluminescence Studies of Self-Assembled Quantum Dots 105
H. Htoon, Hongbin Yu, D. Kulik, J.W. Keto, O. Baklenov,
A.L. Holmes, Jr., and C.K. Shih

Electrical Properties of Nanoscale TiSi₂ Islands on Si 111
Jaehwan Oh, Hoon Ham, Peter Laloli, and R.J. Nemanich

3-D ISLANDING AND IN SITU STUDIES

Evaluation of the Strain Field Inside and Around Growth Islands by Means of X-ray Diffuse Scattering	119
Martin Schmidbauer, Thomas Wiebach, Helmut Raidt, Peter Schäfer, Michael Hanke, Rolf Köhler, Wolfgang Neumann, Holm Kirmse, Michael Rabe, Fritz Henneberger, and Herbert Wawra	
Novel Strain-Relief Mechanisms for Ge/Si(100) Coherent Islands	125
Jeff Drucker, Sergio Chaparro, Yangting Zhang, D. Chandrasekhar, M.R. McCartney, and David J. Smith	
Kinetic Aspects of Island Nucleation Derived From Near Equilibrium Growth Experiments	131
S.H. Christiansen, M. Becker, H. Wawra, M. Albrecht, and H.P. Strunk	
Identification of Shape Transitions in Coherent Ge/Si Islands Using Transmission Electron Microscopy	137
Chuan-Pu Liu, William L. Henstrom, David G. Cahill, and J. Murray Gibson	
Reciprocal Space X-ray Mapping and Transmission Electron Microscopic Studies of Coincided δ-InAs and As-Cluster Superlattices in GaAs Films Grown by Molecular-Beam Epitaxy at Low Temperature	143
V.V. Chaldyshev, N.A. Bert, N.N. Faleev, Yu.G. Musikhin, A.E. Kunitsyn, V.V. Preobrazhenskii, M.A. Putyato, B.R. Semyagin, P. Werner, and Y. Takeda	
Pulsed Magnetic Field Induced 3-D Islanding of Oxygen Contained Clusters in Cz-Si Crystals	149
M.N. Levin and B.A. Zon	
*Growth and Decay of Germanium Islands on Silicon Studied by High Temperature STM	155
M. Kästner and B. Voigtländer	
*In Situ Measurements of Stress Relaxation During Strained Layer Heteroepitaxy	167
E. Chason, J. Yin, K. Tetz, R. Beresford, L.B. Freund, M. Ujue Gonzalez, and J.A. Floro	
 *Invited Paper	

SPONTANEOUS ORDERING

*X-ray and TEM Studies of Short-Range Order in Al_{1-x}In_xAs Thin Films	179
Joseph Kulik, Rebecca Forrest, Jianhua Li, Terry Golding, Simon C. Moss, and Jianming Bai	
First Observation of Atomic Long-Range Ordering in Metal-Oxide Based ZnMgO Wide Bandgap Heterostructures	189
R.D. Vispute, S. Choopun, Y.H. Li, D.M. Chalk, S.B. Ogale, R.P. Sharma, T. Venkatesan, and A. Iliadis	
Epitaxial Growth of CuAu-Ordered CuInSe₂ Structural Polytypes by Migration Enhanced Epitaxy	195
B.J. Stanbery, C-H. Chang, S. Kim, S. Kincal, G. Lippold, S.P. Ahrenkiel, L. Li, T.J. Anderson, and M.M. Al-Jassim	
*Surfactant Effects on Ordering in GaInP Grown by OMVPE	201
G.B. Stringfellow, C.M. Fetzer, R.T. Lee, S.W. Jun, and J.K. Shurtleff	
Spatially Resolved Photoluminescence in Spontaneously-Ordered GaInP₂	211
S. Smith, A. Mascarenhas, J.M. Olson, and L.L. Kazmerski	
*Correlation of InGaP(001) Surface Structure During Growth and CuPt_B-Type Bulk Ordering	217
M. Zorn, P. Kurpas, A. Bhattacharya, M. Weyers, J-T. Zettler, and W. Richter	
*CuPt Ordering Signatures of Phonons in GaInP₂	223
F. Alsina, H.M. Cheong, N. Mestres, J. Pascual, and A. Mascarenhas	
Atomic-Resolution Z-Contrast Imaging and Its Application to Compositional Ordering and Segregation	235
S.J. Pennycook, Y. Yan, A. Norman, Y. Zhang, M. Al-Jassim, A. Mascarenhas, S.P. Ahrenkiel, M.F. Chisholm, G. Duscher, and S.T. Pantelides	

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Editors: Angelo Mascarenhas, David Follstaedt, Tohru Suzuki and Bruce Joyce
Frontmatter
[More information](#)

CuPt-B Ordered Microstructures in GaInP and GaInAs Films	243
S.P. Ahrenkiel, K.M. Jones, R.J. Matson, M.M. Al-Jassim, Y. Zhang, A. Mascarenhas, D.J. Friedman, D.J. Arent, J.M. Olson, and M.C. Hanna	
Single and Double Variant CuPt-B Ordered GaInAs	249
R.L. Forrest, E.D. Meserole, R.T. Nielsen, M.S. Goorsky, Y. Zhang, A. Mascarenhas, M. Hanna, and S. Francoeur	
Electronic and Optical Properties of Orientational Superlattices in GaInP Alloys	255
Yong Zhang, B. Fluegel, S.P. Ahrenkiel, D.J. Friedman, J.F. Geisz, J.M. Olson, and A. Mascarenhas	
Local Order of Te Impurity Atoms in Heavily Doped GaAs:Te and Accompanying Electron Localization Effect	261
T. Slupinski and E. Zielinska-Rohozinska	
Triple-Period (TP)-A and CuPt-A Type Ordering in Al_{0.5}In_{0.5}As Grown by Metalorganic-Vapor-Phase Epitaxy	267
Tohru Suzuki, Toshinari Ichihashi, and Masayoshi Tsuji	
Finite Carrier Confinement and Biexcitonic Complexes in Self-Assembled InAs Quantum Dots	271
A. Jaeger, T. Mankad, W.V. Schoenfeld, T. Lundstrom, and P.M. Petroff	
X-ray Diffraction Study of Chalcopyrite ZnSnP₂ Epitaxial Layers	277
S. Francoeur, G.A. Seryogin, S.A. Nikishin, and H. Temkin	
The Initial Stages of Growth of Ordered GaInP and GaInAs Grown by Metalorganic Vapor Phase Epitaxy	283
M.C. Hanna, Hyeonsik M. Cheong, and A. Mascarenhas	

SPONTANEOUS COMPOSITION MODULATION

Kinetic Instability of Semiconductor Alloy Growth	291
I.P. Ipatova, V.G. Malyshkin, V.A. Shchukin, A.A. Maradudin, and R.F. Wallis	

*Invited Paper

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Editors: Angelo Mascarenhas, David Follstaedt, Tohru Suzuki and Bruce Joyce
Frontmatter
[More information](#)

***The Nature and Origin of Lateral Composition Modulations in Short-Period Strained-Layer Superlattices** 297
A.G. Norman, S.P. Ahrenkiel, H.R. Moutinho, C. Ballif,
M.M. Al-Jassim, A. Mascarenhas, D.M. Follstaedt, S.R. Lee,
J.L. Reno, E.D. Jones, J. Mirecki-Millunchick, and R.D. Twisten

***Morphological and Compositional Instabilities of Strained and Unstrained Alloy Layers** 315
F. Glas and G. Patriarche

Steady-State Structures in Composition-Modulated Alloys: Kinetic Phase Transition Between 1-D and 2-D Patterns 327
V.A. Shchukin and A.N. Starodubtsev

***Reciprocal-Space and Real-Space Analyses of Compositional Modulation in InAs/AlAs Short-Period Superlattices** 333
D.M. Follstaedt, S.R. Lee, J.L. Reno, E.D. Jones, R.D. Twisten,
A.G. Norman, S.P. Ahrenkiel, H.R. Moutinho, A. Mascarenhas,
and J. Mirecki-Millunchick

Formation of Direct Energy Gap Group IV Semiconductor Alloys and Quantum Dot Arrays in $\text{Sn}_x\text{Si}_{1-x}/\text{Si}$ and $\text{Sn}_x\text{Ge}_{1-x}/\text{Ge}$ Alloy Systems 349
Harry A. Atwater, Regina Ragan, and Kyu S. Min

Profiling Composition Variations in Composition-Modulated GaP/InP Short-Period Superlattices Using Resonance Raman Scattering 361
H.M. Cheong, Yong Zhang, A.G. Norman, J.D. Perkins,
A. Mascarenhas, K.Y. Cheng, and K.C. Hsieh

Self-Organized Composition Modulation in OMVPE $\text{Ga}_{1-x}\text{In}_x\text{As}_y\text{Sb}_{1-y}/\text{GaSb}$ Epitaxial Heterostructures 367
Y-C. Chen, V. Bucklen, K. Rajan, C.A. Wang, G.W. Charache,
G. Nichols, M. Freeman, and P. Sander

Author Index 375

Subject Index 379

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Frontmatter

[More information](#)

PREFACE

This volume contains manuscripts presented for the proceedings of Symposium I, "Self-Organized Processes in Semiconductor Alloys—Spontaneous Ordering, Composition Modulation, and 3-D Islanding," held November 29–December 2 at the 1999 MRS Fall Meeting in Boston, Massachusetts. The goal of this symposium was to address issues related to the understanding, control, and technological application of ordering, spinodal decomposition/composition modulation, clustering, and 3-D nucleation in epitaxially grown semiconductor alloys. It was intended that by bringing together researchers in the various sub-fields of epitaxial growth-related instabilities, the inter-relations amongst these sub-fields and the common aspects of the experimental and theoretical techniques used would be emphasized. In this respect, the symposium was a spectacular success.

We wish to thank all of the authors for their efforts in preparing their manuscripts, as well as the participants of the symposium for their excellent presentations and stimulating discussions. We are grateful to Andrew Norman for suggestions concerning invited speakers and several of the topics emphasized. We gratefully acknowledge the National Renewable Energy Laboratory, the Army Research Office, and MRS for their financial support of this symposium. We also wish to thank the symposium chairs, the 1999 MRS Fall Meeting chairs, and the MRS staff for their assistance with the symposium. Finally, we wish to thank the DOE Office of Basic Energy Sciences, Division of Materials Sciences, for their long and sustained support of research in the areas of spontaneous ordering, quantum dots and composition modulation, without which the spectacular progress that was highlighted in the symposium would not have been possible.

Angelo Mascarenhas
David Follstaedt
Tohru Suzuki
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