Self-Organized Processes in Semiconductor Heteroepitaxy
Self-Organized Processes in Semiconductor Heteroepitaxy

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EDITORS:

Andrew G. Norman
National Renewable Energy Laboratory
Golden, Colorado, U.S.A.

Rachel S. Goldman
University of Michigan
Ann Arbor, Michigan, U.S.A.

Richard Noetzel
Eindhoven University of Technology
Eindhoven, The Netherlands

Gerald B. Stringfellow
University of Utah
Salt Lake City, Utah, U.S.A.
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PREFACE

This volume contains a compilation of papers presented in Symposium T, “Self-Organized Processes in Semiconductor Epitaxy,” held December 1–5 at the 2003 MRS Fall Meeting in Boston, Massachusetts. The proceedings includes papers presented in joint sessions with Symposium N, “Quantum Dots, Nanoparticles, and Nanowires,” and Symposium Z, “Progress in Compound Semiconductor Materials III—Electronic and Optoelectronic Applications.” The goal of this symposium was to address issues related to the understanding, control, and applications of several self-organized processes in semiconductor epitaxy, including strain-induced self-assembly; clustering, alloy phase separation, and compositional modulation; and long- and short-range ordering. The symposium was extremely successful in meeting the above goal and attracted participants from around the world. We hope that the symposium and the proceedings will stimulate further research into the above areas. This symposium forms part of a highly successful series of symposia held on these topics that also includes symposia previously held at the 1995 and 1999 MRS Fall Meetings.

We wish to thank all of the authors of the symposium for their efforts in preparing manuscripts, as well as the participants of the symposium for their excellent presentations and stimulating questions and discussions. The organizers are grateful for the financial support of the National Science Foundation, under Grant Number DMR-0404630, administered by Dr. LaVerne Hess. We also acknowledge MRS, the National Renewable Energy Laboratory, Omicron NanoTechnology U.S.A, and Veeco Instruments Inc. (MBE Operations) for additional financial support. We also wish to thank the session chairs, the 2003 MRS Fall Meeting Chairs, and the MRS support staff for their encouragement and help with the symposium and proceedings. Finally, we wish to thank the DOE Office of Basic Energy Sciences, Division of Materials Sciences, for their long and continued support of research in the areas of quantum dots, compositional modulation, and spontaneous atomic ordering, without which the striking progress in these areas evident at the symposium would not have been possible.

Andrew G. Norman
Rachel S. Goldman
Richard Noetzel
Gerald B. Stringfellow

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