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M. Stavola

Hydrogen in Crystalline Semiconductors

With 250 Figures

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Stephen J. Pearton, Ph. D.

AT&T Bell Laboratories
600 Mountain Avenue
Murray Hill, NJ 07974, USA

Professor Michael Stavola, Ph. D.

Physics Department
Lehigh University
Bethlehem, PA 18015, USA

James W. Corbett, Ph. D.

Distinguished Service Professor
Physics Department
State University of New York at Albany
1400 Washington Avenue
Albany, NY 12222, USA

Guest Editor: Professor Dr. Hans-Joachim Queisser

Max-Planck-Institut für Festkörperforschung, Heisenbergstrasse 1
W-7000 Stuttgart 80, Fed. Rep. of Germany

Series Editors:

Prof. Dr. U. Gonser

Fachbereich 12/1
Werkstoffwissenschaften
Universität des Saarlandes
W-6600 Saarbrücken, Fed. Rep. of Germany

A. Mooradian, Ph. D.

Leader of the Quantum Electronics Group
MIT, Lincoln Laboratory
P. O. Box 73
Lexington, MA 02173, USA

Managing Editor: Dr. Helmut K. V. Lotsch

Springer-Verlag, Tiergartenstrasse 17
W-6900 Heidelberg, Fed. Rep. of Germany

Prof. R. M. Osgood

Microelectronics Science Laboratory
Department of Electrical Engineering
Columbia University
Seeley W. Mudd Building
New York, NY 10027, USA

M. B. Panish, Ph. D.

AT&T Bell Laboratories
600 Mountain Avenue
Murray Hill, NJ 07974, USA

Prof. H. Sakaki

Institute of Industrial Science
University of Tokyo
7-22-1 Roppongi, Minato-ku
Tokyo 106, Japan

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Preface

This monograph arose out of the recognition of the importance of hydrogen in modern semiconductor technology. Hydrogen is a component of most chemicals used in the fabrication of electronic and photonic devices, is easily incorporated into semiconductors and it is a model impurity for studying defect reactions in solids.

While writing this volume we have received a good deal of encouragement from our colleagues at AT&T Bell Laboratories, State University of New York at Albany and Lehigh University, and from collaborators at other institutions: to them we extend our sincere appreciation. In particular we would like to thank W.C. Dautremont-Smith, J. Lopata, V. Swaminathan, K. Bergman, L.C. Synder, P. Deák, J.T. Borenstein, T.S. Shi, D. Tulchinsky, G.G. DeLeo, W.B. Fowler, G.D. Watkins and D. Kozuch for their crucial contributions to this work. We would also like to thank Mrs. Danuta Sowinska-Kahn for her unfailing expertise in preparing much of the artwork. Finally we owe a great debt to Helmut Lotsch of Springer-Verlag for his initial suggestion to write this book and then his patient and professional guidance in seeing the project to fruition.

Murray Hill, NJ
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S. J. Pearton
J. W. Corbett
M. Stavola

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