

## Table of Contents

|                                                                                                                                                                |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| <b>Electron Paramagnetic Resonance Studies of Intrinsic Defects in Electron-Irradiated GaAs</b><br>Y.Q. Jia, H.J. von Bardeleben, D. Stiévenard and C. Delerue | 1   |
| <b>Superdiffusion in Semiconductors (Electron-Beam Doping)</b><br>T. Wada                                                                                      | 13  |
| <b>Reconstruction Mechanisms in Ion Implanted and Annealed Silicon Wafers</b><br>C. Christofides, A. Seas and A. Othonos                                       | 45  |
| <b>Defect Structures and Phase Transformation in Single Crystal TiC</b><br>F.R. Chien and S.R. Nutt                                                            | 65  |
| <b>Defects in Amorphous PdNiP and their Role in the Diffusion Process</b><br>P.A. Duine, J. Sietsma and A. van den Beukel                                      | 91  |
| <b>Models for Ionic Transport in Oxide Glasses</b><br>T. Uchino                                                                                                | 111 |
| <b>Ionic Conductivity of Alkali-Rare Earth Silicate and its Application as a Solid-State Electrochemical CO<sub>2</sub> Gas Sensor</b><br>Y. Sadaoka           | 129 |
| <b>The Role of Coherent-Iron Precipitates in the Point Defect Processes Induced in Copper Alloys by Electron Irradiation</b><br>I. Ishida                      | 145 |