

Table of Contents

Electrical and Optical Effects of Hydrogen in Semiconductors	1
The Jahn-Teller Effect and Zero Phonon Line Intensities	27
Optical and Magneto-Optical Properties of Arsenic Antisite Defects in GaAs	39
TEM Observation of Ordered InGaP Crystals Grown on (001) GaAs Substrates by Metalorganic Chemical Vapor Deposition	59
Spatial Distribution of Point Defect Clusters in Electron Irradiated GaSb and GaAs Single Crystals	69
Electron Traps Induced by Boron Implantation in Gallium Arsenide	77
Evidence for Bistable Character of the DX Center in AlGaAs	91
Photoionization Cross-Sections of the DX Centers in GaAlAs Alloys and of the Pressure Induced Deep Donors in GaAs	97
Neutral PGa Antisite Related Complex Defects in Bulk LEC GaP	107
Photoinduced Acceptor Levels in Semiinsulating GaAs	119
Metastability of Antisite Defects in GaAs under Negative Electron Affinity	127
Magneto-Optical Characterization of Isoelectronic Complex Defects in Semiconductors	133
Impurities in Gallium Arsenide and Phosphide: the 4d and 5d Series	145
Neutron Irradiation-Induced Defects in N-Type VPE Layer of GaAs MESFET	155
Electronic Structures of Native Complex Defects in GaP and InP	161
Diffusion in an Ar-Ion-Bombarded Au-Cu Alloy between -120°C and 600°C	167
Application of Thermally Stimulated Luminescence (T.S.L.) Phenomenon to Study the Defects	183
Semiconductors	203
Halides, Oxides, Simple Oxides, Spinel, Garnets, other Complex Oxides, other Ionic Substances, Chlorates, Niobates, Phosphates, Silicates, Sulfates, Sulfides, Miscellaneous and Metals	249
General References, Diffusion Processes, Point Defects, Linear Defects, Planar Defects, Irradiation Effects and Ionic Conduction	321
Book Reviews	333