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Different Dissociation Behavior of [11-20] and Non-[11-20] Basal Plane Dislocations in 4H-Si under Electron Beam IrradiationDensity of Etch Pits on C-Face 4H-SiC Surface Produced by ClF3 Gas; Defect Related Leakage Current Components in SiC Schottky Barrier Diode; Rapid Terahertz Imaging of Carrier Density of 3C-SiC; Chapter 2: Nitride Materials and Devices; Cathodoluminescence Study of Ammonothermal GaN Crystals; The Effect of the Indenter Orientation on the Formation of Dislocations and Cracks in (0001) GaN Bulk Crystals; Defect Propagation from 3C-SiC to III-Nitride
Characterization of Dislocations in GaN Thin Film and GaN/AlN MultilayerMicroscopic Degradation Analysis of RF-Stressed AlGaN/GaN HEMTs; Chapter 3: III-V Compounds and Devices; Distribution of Misfit Dislocations at the InGaAs/GaAs(001) Interface Observed by Monochromatic X-Ray Topography; Effects of in Content on Anisotropies in Strain Relaxation Processes of InGaAs/GaAs (001) Measured by Real-Time Three-Dimensional Reciprocal Space Mapping; Nitrogen Related Deep Levels in GaAsN Films Investigated by a Temperature Dependence of Piezoelectric Photothermal Signal Intermixing in InP-Based Quantum Well Photonic Structures Induced by the Dry-Etching Process: A Spectral Imaging Cathodoluminescence StudyDefect Propagation in Broad-Area Diode Lasers; Kinetics of Defect Propagation during the Catastrophic Optical Damage (COD) in Broad-Area Diode Lasers; Nondestructive Measurement of Carrier Density in GaAs Using Relative Reflectivity of Two Terahertz Waves; Chapter 4: Photovoltaics: From Material to Module; Lock-In Thermography and Related Topics in Photovoltaic Research
EBIC Study on Metal Contamination at Intra Grain Defects in Multicrystalline Silicon for Solar Cells

Sommario/riassunto

This volume documents the latest understanding of many topics of current interest in the science and technology of defects in semiconductors. The investigation of defects in semiconductors is a little different to that in other fields of materials science: in order to observe defects in semiconductors and elucidate their physical nature, a very wide range of tools and techniques has been introduced or created; thanks to the inventive ideas of the researchers. This work clearly reflects the lively state of defect investigation in semiconductors. Review from Book News Inc.: Drawn from papers del