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Solder Grain Image Enhancement""""Extending Acoustic Microscopy for Comprehensive Failure Analysis Applications""; ""Process induced defects in the silicon substrate: Approaches for successful Failure Analysis.""; ""X-sectional Scanning Capacitance Microscopy (SCM) Applications on Deep Submicron Devices at Specific Sites""; ""High Volume and Fast Turnaround Automated Inline TEM Sample Preparation for Manufacturing Process Monitoring""; ""Backscattered Electron Imaging for Embedded Subtle Defects in 32nm Processes""
 ""Semi-Automated Full Wafer In-line SRAM Failure Analysis By Dual Beam Focused Ion Beam (FIB)""""Simulation Studies of Fluorine-induced Corrosion and Defects on Microchip Al Bondpads in Wafer Fabrication""; ""A Novel Wet Etch In-situ Decapsulation of Devices on Boards""; ""Low Temperature Plasma Decapsulation of Copper-wire-bonded and Exposed Copper Metallization Devices""; ""Decapsulation of Copper Bonded Plastic Encapsulated Integrated Circuits Utilizing Laser Ablation and Mixed Acid Chemistry""
 ""Photoluminescence and EBIC for Process Control and Failure Analysis in Si-Based Photovoltaics""""Combined electron beam induced current imaging (EBIC) and focused ion beam (FIB) techniques for thin film solar cell characterization""; ""Activation Energy Analysis of Dark and Laser Illuminated I-V Characteristics of Thin-film Poly Silicon Solar Cells""; ""Characterization and failure analysis of 3D integrated semiconductor devices-novel tools for fault isolation, target preparation and high resolution material analysis""; ""A Novel Junction Profiling Methodology""
 ""Improvement of optical resolution through chip backside using FIB trenches""

Sommario/riassunto

This volume features research and practical data from the premier event for the microelectronics failure analysis community. The papers cover a wide range of testing and failure analysis topics of practical value to anyone working to detect, understand, and eliminate electronic device and system failures. Case histories and review papers are included, as well as guides to new and unique tools and methodologies, applications and results.