1.	Record Nr.	UNINA9910972107203321
	Titolo	ISTFA 2011 : conference proceedings of the 37th International Symposium for Testing and Failure Analysis : November 13-17, 2011, San Jose Convention Center, San Jose, California, USA / / sponsored by EDFAS--Electronic Device Failure Analysis Society, ISTFA/2009, ASM International
	Pubbl/distr/stampa	Materials Park, Ohio, : ASM International, 2011
	ISBN	1-68015-511-3 1-61503-850-7
	Edizione	[1st ed.]
	Descrizione fisica	1 online resource (478 p.)
	Soggetti	Electronics - Materials - Testing Electronic apparatus and appliances - Testing
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	""Title Page""; ""Copyright""; ""Contents""; ""IPFA 2011 Best Paper""; ""Electrical Failure and Damage Analysis of Multi-layer Metal Films on Flexible Substrate during Cyclic Bending Deformation""; ""Session 1: Emerging FA Techniques and Concepts""; ""A Position-Sensitive, Single-Photon Detector with Enhanced NIR Response""; ""Advanced Scan Chain Failure Analysis Using Laser Modulation Mapping and Continuous Wave Probing""; ""Thermal Frequency Imaging: A new application of Laser Voltage Imaging applied on 40nm technology"" ""Local Lattice Strain Measurement using Geometric Phase Analysis of Dark Field Images from Scanning Transmission Electron Microscopy"""" Correcting for spherical aberrations in solid immersion microscopy using a deformable mirror""; ""Session 2: Circuit Edit""; ""The Challenges of Backside Focused Ion Beam (FIB) Editing in the Presence of Deep Trench Decoupling Capacitors""; ""State of the Art Substrate Manipulation As a Tool for Enhancing Product Performance""; ""Neon Ion Microscope Nanomachining Considerations"" ""Instant Solid Immersion Lens creation in silicon with a Focused Ion Beam- comparing refractive and diffractive methods""""Circuit Edit and Optical Probe Development and Validation for Next Generation Process

Nodes""; ""Session 3: Packaging and Assembly Level FA I""; ""3DIC Fault Isolation Using the OBIRCH Approach""; ""Improving Wire Sweep Performance by Measuring Degree of Cure of Epoxy Mold Compounds""; ""Use of Lock-In Thermography for Non-Destructive 3D Defect Localization on System in Package and Stacked-Die Technology""

""Quantitative Phase Shift Analysis for 3D Defect Localization Using Lock-in Thermography""""Failure Analysis of Flip Chip C4 Package Using Focused Ion Beam Milling Technique""; ""Session 4: Test and Diagnostics""; ""Layout-aware Diagnosis Leads to Efficient and Effective Physical Failure Analysis""; ""Device Selection for Failure Analysis of Chain Fails Using Diagnosis Driven Yield Analysis""; ""Debugging an Invisible Flaky Scan Chain Defect""; ""Diagnose Compound Hold Time Faults Caused by Spot Delay Defects at Clock Tree""; ""Session 5: Defect Characterization and Metrology""

""A Comprehensive Analysis Methodology for Gate Oxide Integrity Failure Using Combined FA Techniques""""Al Bondpads, Halogens, and an ESCA-based Search for the Invisible Cause of Poor Throughput at Wafer Probe""; ""Whisker Formation in Copper Electroplating""; ""Comprehensive nano-structural approach of SSRM nanocontact on siliconthrough TEM-STEM study""; ""Highly Automated Transmission Electron Microscopy Tomography for Defect Understanding""; ""Transmission Electron Microscopy Characterization of FinFET a€? Understanding the 3D Structure by 2D Imaging Technique""

""Session 6: Photon Based Fault Isolation Techniques""

Sommario/riassunto

This volume features the latest 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.