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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Analytical Techniques -- Ultrasonics -- Eddy Current Techniques -- X-Ray Analysis -- Barkhausen Noise and Other Magnetic Techniques -- Thermal NDMC Techniques Determination -- Microscopies -- Optical Techniques -- Less Common Material Characterization Techniques -- Acoustic Emission -- Positron Annihilation -- Nuclear Magnetic Resonance -- Optical Techniques -- Multi-Parameter Techniques in NDMC -- Future Perspectives of NDMC.
Sommario/riassunto	This book is devoted to non-destructive materials characterization (NDMC) using different non-destructive evaluation techniques. It presents theoretical basis, physical understanding, and technological developments in the field of NDMC with suitable examples for engineering and materials science applications. It is written for engineers and researchers in R&D, design, production, quality assurance, and non-destructive testing and evaluation. The relevance of NDMC is to achieve higher reliability, safety, and productivity for monitoring production processes and also for in-service inspections for

detection of degradations, which are often precursors of macro-defects and failure of components. Ultrasonic, magnetic, electromagnetic and X-rays based NDMC techniques are discussed in detail with brief discussions on electron and positron based techniques.

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