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Collana	Polymer nano-, micro- & macrocomposites
Altri autori (Persone)	MittalVikas
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	Fillers (Materials) - Surfaces
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Nota di contenuto	Characterization Techniques for Polymer Nanocomposites; Contents; Preface; List of Contributors; 1: Characterization of Nanocomposite Materials: An Overview; 1.1 Introduction; 1.2 Characterization of Morphology and Properties; 1.3 Examples of Characterization Techniques; References; 2: Thermal Characterization of Fillers and Polymer Nanocomposites; 2.1 Introduction; 2.2 TGA of Fillers; 2.2.1 Quantification of the Extent of Surface Modification; 2.2.2 Cleanliness of the Filler Surface; 2.2.3 Comparing the Stability of Different Fillers; 2.2.4 Dynamic TGA Analysis of the Fillers
	2.2.5 Characterization of the Surface Reactions2.2.6 Different Measurement Environments; 2.2.7 Correlation of Organic Matter with Basal Spacing; 2.3 TGA of Polymer Nanocomposites; 2.3.1 Effect of Filler Concentration; 2.3.2 Effect of Compatibilizer; 2.4 DSC of Fillers; 2.4.1 Thermal Transitions in the Modified Fillers; 2.5 DSC of

| Sommario/riassunto | With its focus on the characterization of nanocomposites using such techniques as x-ray diffraction and spectrometry, light and electron microscopy, thermogravimetric analysis, as well as nuclear magnetic resonance and mass spectroscopy, this book helps to correctly interpret the recorded data. Each chapter introduces a particular characterization method, along with its foundations, and makes the user aware of its benefits, but also of its drawbacks.As a result, the reader will be able to reliably predict the microstructure of the synthesized polymer nanocomposite and its thermal and mecha |