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| Nota di contenuto | Introduction to Clay and Carbon Based Polymer Nano-composites: Materials, Processing, and Characterization -- Polymer Nanocomposites for Electronics, Dielectrics, and Microwave Applications -- Polymer Nanocomposites for Structure and Construction Applications -- Polymer Nanocomposites for Biomedical and Biotechnology Applications -- Polymer Nanocomposites for Environmental Applications -- Polymer Nanocomposites for Energy and Fuel Cell Applications -- Polymer Nanocomposites for Automobile Engineering Applications -- Polymer Nanocomposites for Adhesive, Coating and Paint Applications -- Polymer Nanocomposites for Shape Memory Applications. |

The aim of the present edited book is to furnish scientific information about manufacturing, properties, and application of clay and carbon based polymer nanocomposites. It can be used as handbook for undergraduate and post graduate courses (for example material science and engineering, polymer science and engineering, rubber technology, manufacturing engineering, etc.) as well as as reference book for research fellows and professionals. Polymer nanocomposites have received outstanding importance in the present decade because of their broad range of high-performance applications in various areas of engineering and technology due to their special material properties. A great interest is dedicated to nanofiller based polymeric materials, which exhibit excellent enhancement in macroscopic material properties (mechanical, thermal, dynamic mechanical, electrical and many more) at very low filler contents and can therefore be used for the development of next-generation composite materials.
