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Nota di contenuto	Introduction of Polymers and Polymer Composites: Basic Fundamentals -- Synthesis and Processing Techniques of Polymer Composites -- Primary and Secondary Processing of Polymer Matrix Composites -- Characterization Techniques of Polymer Composites -- Reinforced Multiscale Polymer Composites, Properties and Applications -- Glass fiber-reinforced Polymer composites -- Hemp Fiber-Reinforced Poly Lactic Acid Composites: A Sustainable Materials for Engineering and Industry -- Polymer Composites: Testing and Analysis -- 3D Printing of Polymer and Polymer matrix composites -- Natural Fibre Reinforced Composites for Industrial Applications -- Elastomeric-based Composite Materials for Engineering Applications -- State-of-the-art in Textile Polymer Composites and Applications -- Polymer Composites

for use in Nano-generators for Energy Harvesting -- Polymer Nanoparticle Composites for Modern Applications -- Polymer Composites for Electromagnetic Interference (EMI) Shielding Applications -- Polymer Composites for Biomedical Applications -- Piezoelectric Polymer Composites for Energy Harvesting.

Sommario/riassunto

This book highlights the fundamentals and recent advances for developing novel polymer composites for various applications, including 3D printing, automotive, textiles, agriculture, nanogenerators, energy storage and biomedical engineering. It presents various facile processing techniques to prepare polymeric composites with attractive properties like mechanical strength, flexibility, thermal & electrical performances for end used applications from bench to field. This in-sight of properties, performances and utility will lead to technological applications of polymer composites. It provides a platform for evolving and expanding technological solutions for challenges in the contemporary world, and presents a concrete path for advancement in this domain of polymer composite for professionals, researchers, material scientists, and students.
