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Nota di contenuto	Nanocellulose-based polymer nanocomposites : an introduction / Manju Kumari Thakur, Vijay Kumar Thakur, and Raghavan Prasanth -- Bacterial cellulose-based nanocomposites : roadmap for innovative materials / Ana R. P. Figueiredo, Carla Vilela, Carlos Pascoal Neto, Armando J. D. Silvestre, and Carmen S. R. Freire -- Polyurethanes reinforced with cellulose / Maria L. Auad, Mirna A. Mosiewicki, and Norma E. Marcovich -- Bacterial cellulose and its use in renewable composites / Dianne R. Ruka, George P. Simon, and Katherine M. Dean -- Nanocellulose-reinforced polymer matrix composites fabricated by in-situ polymerization technique / Dipa Ray and Sunanda Sain -- Multifunctional ternary polymeric nanocomposites based on cellulosic nanore- inforcements / D. Puglia, E. Fortunati, C. Santulli, and J. M. Kenny -- Effect of fiber length on thermal and mechanical properties of polypropylene nanobiocomposites reinforced with kenaf fiber and nanoclay / Na Sim and Seong Ok Han -- Cellulose-based liquid crystalline composite systems / J. P. Borges, J. P. Canejo, S. N. Fernandes, and M. H. Godinho -- Recent advances in nanocomposites based on biodegradable polymers and nanocellulose / J. I. Moran, L. N.

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Sommario/riassunto

Biorenewable polymers based nanomaterials are rapidly emerging as one of the most fascinating materials for multifunctional applications. Among biorenewable polymers, cellulose based nanomaterials are of great importance due to their inherent advantages such as environmental friendliness, biodegradability, biocompatibility, easy processing and cost effectiveness, to name a few. They may be produced from biological systems such as plants or be chemically synthesised from biological materials. This book summarizes the recent remarkable achievements witnessed in green technology of cellulose