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Nota di contenuto	FLAME RETARDANT POLYMER NANOCOMPOSITES; CONTENTS; Contributors; Preface; Acronyms; 1 Introduction to Flame Retardancy and Polymer Flammability; 1.1 Introduction; 1.2 Polymer Combustion and Testing; 1.2.1 Laboratory Flammability Tests; 1.2.2 Polymer Combustion; 1.3 Flame Retardancy; 1.3.1 General Flame Retardant Mechanisms; 1.3.2 Specific Flame Retardant Mechanisms; 1.3.3 Criteria for Selection of Flame Retardants; 1.3.4 Highly Dispersed Flame Retardants; 1.4 Conclusions and Future Outlook; References; 2 Fundamentals of Polymer Nanocomposite Technology; 2.1 Introduction 2.2 Fundamentals of Polymer Nanocomposites2.2.1 Thermodynamics of Nanoscale Filler Dispersion; 2.2.2 Synthetic Routes for Nanocomposite Formation; 2.2.3 Dispersion Characterization: Common Techniques and Limitations; 2.3 Effects of Nanofillers on Material Properties; 2.3.1 Effects on Polymer Crystallization; 2.3.2 Effects on

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Sommario/riassunto

Flame Retardant Polymer Nanocomposites takes a comprehensive look at polymer nanocomposites for flame retardancy applications and includes nanocomposite fundamentals (theory, design, synthesis, characterization) as well as polymer flammability fundamentals with emphasis on how nanocomposites affect flammability. The book has practical examples from literature, patents, and existing commercial products. Readers can design new work based upon the material in the book or use it as a handy reference for interpreting existing work and results.
