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Altri autori (Persone)	RotelloVincent M ThayumanavanS (Sankaran)
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Nota di contenuto	MOLECULAR RECOGNITION AND POLYMERS; CONTENTS; Preface; Acknowledgments; List of Contributors; List of Figures; List of Tables; Editor Biographies; PART I FUNDAMENTALS OF SUPRAMOLECULAR POLYMERS; 1. A BRIEF INTRODUCTION TO SUPRAMOLECULAR CHEMISTRY IN A POLYMER CONTEXT; 1.1. Introduction and Background; 1.2. Main-Chain Versus Side-Chain Supramolecular Polymers; References; 2. MOLECULAR RECOGNITION USING AMPHIPHILIC MACROMOLECULES; 2.1. Introduction; 2.2. Amphiphilic Block Copolymers; 2.2.1. Nonspecific Interactions; 2.2.2. Specific Interactions; 2.3. Amphiphilic Homopolymers 2.3.1. Container Properties2.3.2. Recognition of Protein Surfaces; 2.3.3. Protein Sensing; 2.3.4. Recognition and Detection of Peptides; 2.4. Amphiphilic Dendrimers; 2.5. Conclusions; Acknowledgment; References; 3. SUPRAMOLECULAR CONTROL OF MECHANICAL

PROPERTIES IN SINGLE MOLECULES, INTERFACES, AND MACROSCOPIC MATERIALS; 3.1. Introduction and Background; 3.2. Mechanical Properties of Linear SPs; 3.3. Mechanical Properties of SP Networks; 3.4. Mechanical Properties in SPs at Interfaces; 3.5. Mechanical Forces and Supramolecular Interactions; 3.6. Conclusions; References

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5.2.1. Side Chain Functionalization Using Hydrogen Bonding

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Sommario/riassunto

State-of-the-art techniques for tapping the vast potential of polymers

The use of specific non-covalent interactions to control polymer structure and properties is a rapidly emerging field with applications in diverse disciplines. Molecular Recognition and Polymers covers the fundamental aspects and applications of molecular recognition-in the creation of novel polymeric materials for use in drug delivery, sensors, tissue engineering, molecular imprinting, and other areas. This reference begins by explaining the fundamentals of supramolecular polymers; it progresses to cover poly