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Nota di contenuto	SYNDIOTACTIC POLYSTYRENE; CONTENTS; PREFACE; CONTRIBUTORS; ABOUT THE EDITOR; PART I INTRODUCTION; 1. Historical Overview and Commercialization of Syndiotactic Polystyrene; 1.1 Discovery of Syndiotactic Polystyrene (SPS); 1.2 Early Years of Development (1985- 1989); 1.3 Intense Development Years (1989-1996); 1.4 Initial Commercial Launch Stage (1996-2001); 1.5 Years 2001-2007; PART II PREPARATION OF SYNDIOTACTIC POLYSTYRENE; 2. Transition Metal Catalysts for Syndiotactic Polystyrene; 2.1 Introduction; 2.2 Transition Metal Compounds; 2.2.1 Metals; 2.2.2 Titanium Complexes 2.2.3 Molecular Weight Control 2.2.4 Supported and Heterogeneous Catalysts; 2.3 Summary; References; 3. Cocatalysts for the Syndiospecific Styrene Polymerization; 3.1 Introduction; 3.2 MAO; 3.3 Boron Compounds; 3.4 Other Chemicals; 3.5 Summary; References; 4. Mechanisms for Stereochemical Control in the Syndiotactic Polymerization of Styrene; 4.1 Introduction; 4.2 Insertion of the Growing Polymer Chain into the Double Bond of Styrene; 4.3 Stereochemistry of the Styrene Insertion; 4.4 Effects of Hydrogenation of the Catalyst; 4.5 Active Site Species; 4.5.1 Valence of Active Sites 4.5.2 Number of Active Sites 4.5.3 Structure of Active Sites; 4.6

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	Theoretical Analysis of the Catalyst; 4.7 Kinetic Analysis of Styrene Polymerization; 4.8 Conclusions; References; 5. Copolymerization of Ethylene with Styrene: Design of Efficient Transition Metal Complex Catalysts; 5.1 Introduction; 5.2 Ethylene/Styrene Copolymers: Microstructures, Thermal Properties, and Composition Analyses; 5.3 Ethylene/Styrene Copolymerization Using Transition Metal Complex- Cocatalyst Systems; 5.3.1 Half-Titanocenes, Cp TiX(3); 5.3.2 Linked (Constrained Geometry Type) Half-Titanocenes 5.3.3 Modified Half-Titanocenes, C(p )Ti(L)X(2)5.3.4 Non-Cp Titanium Complexes; 5.3.5 Metallocenes; 5.3.6 Others; 5.4 Summary and Outlook; References; 6. Structure and Properties of Tetrabenzo[a,c,g,i] fluorenyl-Based Titanium Catalysts; 6.1 Introduction; 6.2 The Tbf Ligand; 6.3 Tbf Lithium; 6.3.1 Synthesis and Characterization of Tbf Titanium(III) Chloride Complexes; 6.4.2 Reaction of TbfTi(III)Cl(2)(THF) (VIII) with Radicals; 6.5 Tbf Titanium(IV) Derivatives; 6.5.1 Synthesis of Tbf Titanium Monophenoxide Complexes 6.6 Dynamic and Polymerization Behavior of Tetrabenzofluorenyl Titanium Complexes 6.6.1 Styrene Polymerization; 6.7 Conclusions; References; 7. Rare-Earth Metal Complexes as Catalysts for Syndiospecific Styrene Polymerization; 7.1 Introduction; 7.2 Metallocene Catalysts; 7.3 Constrained Geometry Catalysts; 7.4 Half- Sandwich Catalysts; 7.5 Nonmetallocene Catalysts; 7.6 Conclusion; References; 8. Syndiospecific Styrene Polymerization with Heterogenized Transition Metal Catalysts; 8.1 Introduction; 8.2 Kinetics of Syndiospecific Polymerization with Heterogeneous Metallocene Catalysts 8.2.1 Kinetic Profiles of Heterogeneous SPS Polymerization
Sommario/riassunto	Syndiotactic Polystyrene (SPS), synthesized in a laboratory for the first time in 1985, has become commercialized in a very short time, with wide acceptance on the global plastics market. Written by leading experts from academia and industry from all over the world, Syndiotactic Polystyrene offers a comprehensive review of all aspects of SPS of interest to both science and industry, from preparation and properties to applications. This essential reference to SPS covers: The preparation of syndiotactic polystyrene by half-metallocenes and other transition metal catalysts<