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Chromatography; 2.3.3 Intrinsic Viscosity; 2.3.4 Melt Flow Rate; 2.4 Polymer Bulk Density; 2.4.1 Introduction; 2.4.2 Measurement Method; 2.5 Particle Size Distribution and Morphology; 2.5.1 Introduction; 2.5.2 Measurement Method; 2.6 Questions; References; 3 Ziegler-Natta Catalysts; 3.1 A Brief History of Ziegler-Natta Catalysts; 3.2 Definitions and Nomenclature; 3.3 Characteristics of Ziegler-Natta Catalysts; 3.4 Early Commercial Ziegler-Natta Catalysts
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4.11 Kinetics and ZN Catalyst Productivity4.12 Concluding Remarks; 4.13 Questions; References; 5 Aluminum Alkyls in Ziegler-Natta Catalysts; 5.1 Organometallic Compounds; 5.2 Characteristics of Aluminum Alkyls; 5.2.1 Basic Physical and Chemical Properties; 5.2.2 Hydride Content; 5.2.3 Other R3A1 Impurities; 5.2.4 Analysis of Aluminum Alkyls; 5.2.5 Impurities Resulting from Exposure to Minute Concentrations of Water and Oxygen; 5.2.6 Assays of Aluminum Alkyls; 5.2.7 Reactivity with Organic Substrates; 5.2.8 Reactivity with CO2 and CO; 5.2.9 Distillation; 5.2.10 Association of Aluminum Alkyls
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6.6 Characteristics of mPP

Sommario/riassunto

This introductory text is an important resource for new engineers, chemists, students, and chemical industry personnel to understand the technical aspects of polypropylene which is the 2nd largest synthetics polymer in manufactured output. The book considers the following topics: What are the principal types of polypropylene and how do they differ? What catalysts are used to produce polypropylene and how do they function? What is the role of cocatalysts and how have they evolved over the years? How are industrial polypropylene catalysts tested an