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Titolo	Multimodal Polymers with Supported Catalysts [[electronic resource] ] : Design and Production // edited by Alexandra Romina Alburnia, Floran Prades, Dusan Jeremic
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Nota di contenuto	Chapter 1. Review on recent developments in supported polyolefin catalysts -- Chapter 2. Support Designed for Polymerization Processes -- Chapter 3. Fragmentation, Particle Growth and Single Particle Modelling -- Chapter 4. Polymerization Kinetics and the Effect of Reactor Residence Time on Polymer Microstructure -- Chapter 5. Industrial Multi-modal Processes -- Chapter 6. Multimodal Polypropylenes: The close interplay between catalysts, processes and polymer design -- Chapter 7. Bimodal Polyethylene:Controlling polymer properties by molecular design.
Sommario/riassunto	This book provides an overview of polyolefine production, including several recent breakthrough innovations in the fields of catalysis, process technology, and materials design. The industrial development of polymers is an extraordinary example of multidisciplinary cooperation, involving experts from different fields. An understanding of structure-property and processing relationships leads to the design of materials with innovative performance profiles. A comprehensive

description of the connection between innovative material performance and multimodal polymer design, which incorporates both flexibility and constraints of multimodal processes and catalyst needs, is provided. This book provides a summary of the polymerization process, from the atomistic level to the macroscale, process components, including catalysts, and their influence on final polymer performance. This reference merges scholarly investigation and industrial knowledge to fill the gaps between academic research and industrial processes. Connects innovative material performance to the flexibility of multimodal polymer design processes; Provides a comprehensive description of the polymerization process from the atomic level to the macroscale; Presents a polyhedral view of multimodal polymer production, including structure, property, and processing relationships, and the development of new materials.

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