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Nota di contenuto	List of Contributors -- About the Guest Editor -- Preface to "Polymer Reactor Modeling, Design and Monitoring" -- Model-Based Reactor Design in Free-Radical Polymerization with Simultaneous -- Optimal Design for Reactivity Ratio Estimation: A Comparison of Techniques for AMPS/Acrylamide and AMPS/Acrylic Acid Copolymerizations -- Modeling of the Copolymerization Kinetics of n-Butyl Acrylate and D-Limonene Using PREDICI® -- State Observer Design for Monitoring the Degree of Polymerization in a Series of Melt Polycondensation Reactors -- Combining On-Line Characterization Tools with Modern Software Environments for Optimal Operation of Polymerization Processes -- Surrogate Models for Online Monitoring and Process Troubleshooting of NBR Emulsion Copolymerization -- Gaussian Mixture Model-Based Ensemble Kalman Filtering for State and Parameter Estimation for a PMMA Process -- Modeling and Optimization of High-Performance Polymer Membrane Reactor Systems for Water-Gas Shift Reaction Applications -- Study of n-Butyl Acrylate Self-Initiation Reaction Experimentally and via Macroscopic Mechanistic Modeling.
Sommario/riassunto	Polymers range from synthetic plastics, such as polyacrylates, to natural biopolymers, such as proteins and DNA. The large molecular mass of polymers and our ability to manipulate their compositions and molecular structures have allowed for producing synthetic polymers with attractive properties. new polymers with remarkable characteristics are synthesized. Because of the huge production volume of commodity

polymers, a little improvement in the operation of commodity-polymer processes can lead to significant economic gains. On the other hand, a little improvement in the quality of specialty polymers can lead to substantial increase in economic profits.