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Nota di contenuto	PRINCIPLES AND APPLICATIONS OF EMULSION POLYMERIZATION; CONTENTS; Preface; 1 Introduction; 1.1 Free Radical Polymerization; 1.1.1 Free Radical Polymerization Mechanisms; 1.1.2 Free Radical Polymerization Kinetics; 1.2 Emulsion Polymerization; 1.2.1 Conventional Emulsion Polymerization; 1.2.2 Emulsion Polymerization Processes; 1.2.3 Miniemulsion Polymerization; 1.2.4 Microemulsion Polymerization; 1.2.5 Inverse Emulsion Polymerization; 1.3 Colloidal Stability; 1.3.1 A Critical but Often Ignored Issue; 1.3.2 Electrostatic Interactions; 1.3.3 Steric Interactions; 1.3.4 Mechanical Stability 1.4 Some Performance Properties for Industrial Applications1.4.1 Rheology; 1.4.2 Film Formation; References; 2 Interfacial Phenomena; 2.1 Thermodynamic Consideration; 2.1.1 Emulsification of Oil in Water; 2.1.2 Interfaces; 2.1.3 Surfactant Molecules Adsorbed at an Interface; 2.2 Surfactants; 2.2.1 Critical Micelle Concentration (CMC); 2.2.2 Hydrophile-Lipophile Balance (HLB); 2.2.3 Solubility Parameter; 2.3 Colloidal Stability; 2.3.1 Van der Waals Forces; 2.3.2 Electrostatic Interactions; 2.3.3 Steric Interactions; 2.3.4 Kinetics of Flocculation; References; 3 Particle Nucleation Mechanisms

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4.5 Polymer Molecular Weight

Sommario/riassunto

Up-to-date coverage of methods of emulsion polymerization This book provides a comprehensive reference on emulsion polymerization methods, focusing on the fundamental mechanisms and kinetics of each process, as well as how they can be applied to the manufacture of environmentally friendly polymeric materials. Topics covered include: Conventional emulsion polymerization Miniemulsion polymerization Microemulsion polymerization Industrial emulsion polymerization processes (primarily the semibatch and continuous reactions systems) The role of various colloidal
