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	Designing Solid Dispersions; References; Chapter 2: Polymers and Surfactants; 3.1 Introduction; 3.2 Amorphous Dispersion Screening; 3.3 Amorphous Solid Dispersion Selection; 3.4 Case Study; 3.5 Conclusions; References Chapter 3: Amorphous Solid Dispersion Screening4.1 Introduction; 4.2 Thermal Analysis Methods; 4.3 Dielectric Relaxation Methods; 4.4 Moisture Sorption Methods; 4.5 Vibrational Spectroscopy and Microspectroscopy; 4.6 Solid-State NMR Spectroscopy; 4.7 Other Molecular Spectroscopic Methods; 4.8 X-Ray Diffractometry; 4.9 Microscopic and Surface Analysis Methods; 4.10 Other Emerging Analytical Methods; 4.11 Computational Models; 4.12 Conclusions; Acknowledgments; References; Chapter 4: Solid-State Characterization of Amorphous Dispersions; 5.1 Introduction 5.2 Theory of Crystallization in the Solid State5.3 Factors Impacting the Crystallization Tendency of Active Pharmaceutical Compounds; 5.4 Role of Additives in Modifying Solid-State Crystallization; 5.5 Assessment of Physical Stability; 5.6 Crystallization in Aqueous Environments; 5.7 Summary and Outlook; References; Chapter 5: Physical Stability and Crystallization Inhibition; 6.1 Solubility and Dissolution: An Overview; 6.2 Differences Between Crystalline API, Amorphous Materials, and Amorphous Dispersions as it Pertains to Solubility and Dissolution, and Supersaturation6.4 Solubility and Dissolution Factors to Consider for Dispersions; 6.5 Solubility and Dissolution Measurements for Amorphous Dispersions: Summary, Conclusions, and Recommendations; Acknowledgments; References; Chapter 6: Solubility and Dissolution Considerations for Amorphous Solid Dispersions; 7.1 Introduction: Translational Drug Development; 7.2 Translational Development at the Discovery Stage; 7.3 Translational Development After Discovery; 7.4 Conclusions; References Chapter 7: Translational Development of Amorphous Dispersions
Sommario/riassunto	Providing a roadmap from early to late stages of drug development, this book overviews amorphous solid dispersion technology - a leading platform to deliver poorly water soluble drugs, a major hurdle in today's pharmaceutical industry. Helps readers understand amorphous solid dispersions and apply techniques to particular pharmaceutical systems Covers physical and chemical properties, screening, scale-up, formulation, drug product manufacture, intellectual property, and regulatory considerations Has an appendix with structure and property information for polymers commonly used in drug developm