1. Record Nr. UNINA9910828545503321

Titolo	Pharmaceutical amorphous solid dispersions / / edited by Ann Newman, Seventh Street Development Group Lafayette, Indiana, USA ; contributors, Patrick Augustijns [and forty seven others]
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , 2015 ©2015
ISBN	1-118-90141-X 1-118-90138-X
Descrizione fisica	1 online resource (1218 p.)
Disciplina	615.7
Soggetti	Pharmaceutical technology Absorption Solubility
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Cover; Title Page; Copyright; Dedication; Preface; Contributors; 1.1 Introduction; 1.2 Formation of the Amorphous State and the Glass Transition Temperature; 1.3 Structure of Amorphous Solids; 1.4 Molecular Mobility in Amorphous Solids; 1.5 Solid-State Crystallization from the Amorphous State; 1.6 Supersaturation of API in Aqueous Media from the Amorphous State; 1.7 Mixtures of Amorphous Solids; 1.8 Formation and Properties of Amorphous Solid Dispersions; 1.9 Solid-State Crystallization from Amorphous Dispersions; 1.10 Dissolution and Supersaturation of API from Amorphous Solid Dispersions 1.11 Pharmaceutical Development of Amorphous Solid DispersionsReferences; Chapter 1: Introduction to Amorphous Solid Dispersions; 2.1 Polymers Commonly Used in Amorphous Solid Dispersions; 2.2 Surfactants Commonly Used in Solid Dispersions; 2.3 Synergies between Surfactants and Polymers in Solid Dispersion Systems; 2.4 Physical Properties of Materials and Considerations in 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
6.3 The Relationship of Polymer Properties with Solubility, 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