

Χαρακτηριστικά:

- Provides an **essential companion to the entire pharmaceuticals curriculum** from day one until the end of the course—written specifically for those new to the design and manufacture of dosage forms
- Contains **updates throughout** to reflect advances in formulation and drug delivery science, pharmaceutical manufacturing, quality control and medicines regulation
- Demonstrates how an understanding of **relevant pharmaceutical science and technology** is essential for the design and manufacture of high quality, safe, and effective medicines
- Reflects **current practices and future applications** of formulation and drug delivery science to small drug molecules, biotechnology products including antibodies and nucleic acids, and nanomedicines
- Includes **key points boxes** for quick summaries of important information, and **more than 400 multiple-choice questions online** for self-assessment to review and consolidate learning
- **An eBook version is included with purchase.** The eBook allows you to access all of the text, figures, and references, with the ability to search, make notes and highlights, and have content read aloud

Περιεχόμενα:

PART 1 Scientific principles of dosage form design

- 1 Design of dosage forms
- 2 Dissolution and solubility
- 3 Properties of solutions
- 4 Surfaces and interfaces
- 5 Disperse systems
- 6 Rheology
- 7 Kinetics

PART 2 Particle science and powder technology

- 8 Solid-state properties
- 9 Particle size analysis
- 10 Particle size reduction and size separation
- 11 Mixing
- 12 Powder flow

PART 3 Pharmaceutical microbiology and sterilization

- 13 Fundamentals of microbiology
- 14 Pharmaceutical applications of microbiological techniques
- 15 Action of physical and chemical agents on microorganisms
- 16 Principles of sterilization

17 Sterilization in practice

PART 4 Biopharmaceutical principles of drug delivery

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19 Gastrointestinal tract – physiology and drug absorption

20 Bioavailability – physicochemical, dosage form and formulation factors

21 Assessment of biopharmaceutical properties

22 Dosage regimens

PART 5 Dosage form design and manufacture

23 Pharmaceutical preformulation

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25 Clarification

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27 Emulsions and creams

28 Ointments, pastes, gels, cutaneous patches and topical sprays

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30 Drying

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32 Modified-release oral drug delivery

33 Coating of tablets and multiparticulates

34 Continuous manufacturing of tablets

35 Hard capsules

36 Soft capsules

37 Dissolution testing of solid oral dosage forms

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52 Microbial contamination, spoilage and preservation of medicines

53 Product stability and stability testing

54 Pharmaceutical quality: the application of pharmaceuticals in medicines regulation