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Nota di contenuto	Title Page; Copyright Page; Contents; Contributor List; Preface; Part I Fundamentals of Mixing; Chapter 1 Mixing Theory; 1.1 Introduction; 1.2 Describing Mixtures; 1.3 Scale of Scrutiny; 1.4 Quantifying Mixedness for Coarse and Fine-Grained Mixtures; 1.4.1 Coarse and Fine-Grained Mixtures; 1.4.2 Scale and Intensity of Segregation; 1.5 Determining the End-Point of Mixing: Comparison of Mixing Indices; 1.6 Continuous Flow Mixers; 1.6.1 Idealized Mixing Patterns; 1.6.2 Residence Time Distributions; 1.6.3 Back-Mixing and Filtering of Disturbances Using a CSTR; References Chapter 2 Turbulent Mixing Fundamentals2.1 Introduction; 2.2 The Velocity Field and Turbulence; 2.3 Circulation and Macro-Mixing; 2.4 Fully Turbulent Limits and the Scaling of Turbulence; 2.5 The Spectrum of Turbulent Length Scales, Injection of a Scalar (Either Reagent or Additive) and the Macro-, Meso- and Micro-Scales of Mixing; 2.6 Turbulence and Mixing of Solids, Liquids, and Gases; 2.7 Specifying Mixing Requirements for a Process; 2.8 Conclusions; Notation; Roman Characters; Greek Characters; References; Chapter 3 Laminar Mixing Fundamentals; 3.1 Laminar Flows

Sommario/riassunto

Written in four parts, this book provides a dedicated and in-depth reference for blending within the pharmaceutical manufacturing industry. It links the science of blending with regulatory requirements associated with pharmaceutical manufacture. The contributors are a combination of leading academic and industrial experts, who provide an informed and industrially relevant perspective of the topic. This is an essential book for the pharmaceutical manufacturing industry, and related academic researchers in pharmaceutical science and chemical and mechanical engineering.