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Altri autori (Persone)	TrainiDaniela ButtiniFrancesca
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Nota di contenuto	Inhalation Drug Delivery: Techniques and Products; Contents; List of contributors; Series foreword; Preface; 1 Inhalation drug delivery; 1.1 Introduction; 1.2 Brief review of the respiratory system and its physiology; 1.3 Deposition and the fate of particles in the respiratory tract; 1.4 Deposition mechanisms; 1.5 Parameters influencing particle deposition; 1.6 The clearance of deposited particles; 1.7 Airways geometry and humidity; 1.8 Lung clearance mechanisms; 1.9 Local and systemic drug delivery; 1.10 Conclusion; References; 2 Inhalation and nasal products; 2.1 Introduction 2.2 Dry powder inhalers (DPIs)2.3 Liquid and propellant-based inhalers; 2.3.1 Pressurized metered-dose inhalers (pMDIs); 2.3.2 Nebulizers; 2.4 Nasal formulations; 2.4.1 Nasal physiology; 2.4.2 Delivery issues and concerns; 2.4.3 Strategy for enhanced nasal delivery; 2.4.4 Marketed nasal products; 2.4.5 Pharmaceutical development studies for nasal products; 2.5 Conclusion; References; 3 Formulation of inhalation medicines; 3.1 Introduction; 3.2 Pressurized metered-dose inhaler (pMDI) formulation; 3.2.1 Suspension technology; 3.2.2 Solution

technology; 3.3 Dry powder inhaler (DPI) formulation  
3.3.1 Carrier technology3.3.2 Agglomerate technology; 3.4 Conclusion; References; 4 Novel particle production technologies for inhalation products; 4.1 Introduction; 4.2 Conventional crystallization and milling; 4.3 Specialized milling; 4.3.1 Fluid-energy milling at elevated humidity; 4.3.2 Wet-milling nanotechnology; 4.4 Solvent precipitation; 4.4.1 Sono-crystallization; 4.4.2 Microprecipitation by opposing liquid jets and tangential liquid jets; 4.4.3 High-gravity controlled precipitation; 4.5 Spray-drying and related droplet evaporation methods; 4.5.1 Spray-drying  
4.5.2 Controlled evaporation of droplets4.5.3 Evaporation of low-boiling-point solutions; 4.5.4 Spray freeze-drying; 4.6 Supercritical fluid (SCF) technology; 4.7 Conclusion; Acknowledgements; References; 5 Methods for understanding, controlling, predicting, and improving drug product performance; 5.1 Introduction; 5.1.1 The complexities and challenges of aerosol performance; 5.1.2 Understanding powder/particle characteristics: implications for aerosol product performance; 5.1.3 Liquid systems; 5.1.4 Summary; 5.2 Particle sizing; 5.2.1 Sieve analysis; 5.2.2 Image analysis; 5.2.3 Light scatter  
5.2.4 Time-of-flight5.2.5 Other methods; 5.3 Powder and particulate characterization systems; 5.3.1 Introduction; 5.3.2 Powder cohesion and adhesion; 5.3.3 Microscopic material characterization; 5.3.4 Methods for studying bulk powders; 5.4 Practical issues in process control; 5.4.1 Common primary and secondary processing methods and issues arising for control; 5.5 Biopharmaceutical powder stability; 5.6 Liquids: solutions and suspensions; 5.6.1 Liquid formulation stability; 5.7 Conclusion; References  
6 Aerodynamic assessment for inhalation products: fundamentals and current pharmacopoeial methods

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#### Sommario/riassunto

"Provides students and those in industry with concise clear guide to the essential fundamentals in inhalation drug delivery"--Provided by publisher.

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