1. Record Nr. UNINA9910988286303321

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| Titolo | Advances in Pharmaceutical Product Development / / edited by Keerti Jain, Awesh K. Yadav |
| Pubbl/distr/stampa | Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025 |
| ISBN | 981-9792-30-4 |
| Edizione | [1st ed. 2025.] |
| Descrizione fisica | 1 online resource (XV, 443 p. 57 illus., 54 illus. in color.) |
| Collana | Medicine Series |
| Disciplina | 615 |
| Soggetti | Pharmacology<br>Drug delivery systems<br>Pharmacovigilance<br>Drug Delivery<br>Drug Safety and Pharmacovigilance |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di contenuto | Advances in Development of Pharmaceutical Products -- Design of Materials and Product Specifications for Pharmaceutical Dosage Forms -- Optimization Techniques for Development of Pharmaceutical Products -- Pharmaceutical Product Development: Formulation Additives -- Advances in Pharmaceutical Oral Solid Dosage Forms -- Advances in Tablet Production and Tablet Coating -- Formulation Evaluation and Development of Specialized Tablets -- Suspensions: Theory, Formulation, Considerations, Flocculated and Deflocculated Suspensions, Evaluation of Suspension Stability -- Liquid and poly-disperse systems: Emulsions -- Sterile Products and Admixtures -- Challenges and Advances in Pharmaceutical Development of Topical and Transdermal Dosage Forms -- Advances in Ophthalmic Formulations Development -- Advances and Developments in Formulation of Drug Nanocrystals -- A Technological Update on Inhalation Drug Delivery Devices -- Herbal Formulations: Development, Challenges, Testing, Stability, and Regulatory Guidelines -- Drug Repurposing and Virtual Screening -- Preclinical and Clinical Studies, Pharmacovigilance, Pharmacogenomics, and Commercialization of Pharmaceutical Products. |

Sommario/riassunto

This book discusses the stages involved in pharmaceutical product development including the importance, requirement, and effect of each stage and process. It also covers prototype development for pharmaceutical formulations, scale-up studies, optimization, testing, packaging, and commercialization of different dosage forms for pharmaceutical products like tablets, suspensions, emulsions, coating, inhalational products, sterile products, and herbal formulations. The book also presents advancements in tablet production and tablet coating, including materials, material handling, granulation and granulation technologies, process automation, processing problems in tablet production and troubleshooting, advances in equipment for coating and coating materials. Further, the chapter explores the advances in the formulation and development of aerosols, nebulizers, inhalers, metered Dose Inhalers (MDI), and dry powder Inhalers (DPIs). Towards the end, the book examines the challenges, formulation development, testing, stability, and regulatory guidelines in the development of herbal formulations. This book provides a valuable source of information for the researcher, scientists, students, and people working in the area mainly focused on the challenges in pharmaceutical product development.

2. Record Nr. UNINA9910966024403321

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| Autore | Belotserkovskii O. M (Oleg Mikhailovich) |
| Titolo | Constructive modeling of structural turbulence and hydrodynamic instabilities / / O.M. Belotserkovskii |
| Pubbl/distr/stampa | New Jersey, : World Scientific, c2009 |
| ISBN | 9786612441103<br>9781282441101<br>1282441108<br>9789812833020<br>9812833021<br>9781615830381<br>1615830383 |
| Edizione | [1st ed.] |
| Descrizione fisica | 1 online resource (489 p.) |
| Disciplina | 629.132/32 |
| Soggetti | Turbulence |
| 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. |
| Nota di contenuto | Preface; Introduction; Contents; 1. Constructive Modeling of Free Developed Turbulence - Coherent Structures, Laminar-Turbulent Transition, Chaos; 2. Modeling of Richtmyer-Meshkov Instability; 3. Rayleigh-Taylor Instability: Analysis and Numerical Simulation; 4. Direct Statistical Approach for Aerohydrodynamic Problems; Appendix A Computational Experiment: Direct Numerical Simulation of Complex Gas-Dynamical Flows on the Basis of Euler, Navier-Stokes, and Boltzmann Models; Appendix B Formation of Large-Scale Structures in the Gap Between Rotating Cylinders: the Rayleigh-Zeldovich Problem Appendix C Universal Technology of Parallel Computations for the Problems Described by Systems of the Equations of Hyperbolic Type: A Step to SupersolverAppendix D Supercomputers in Mathematical Modeling of the High Complexity Problems; Appendix E On Nuts and Bolts of Structural Turbulence and Hydrodynamic Instabilities; Appendix F List of the Main Publications of O. M. Belotserkovskii |
| Sommario/riassunto | The book provides an original approach in the research of structural analysis of free developed shear compressible turbulence at high |

Reynolds number on the base of direct numerical simulation (DNS) and instability evolution for ideal medium (integral conservation laws) with approximate mechanism of dissipation (FLUX dissipative monotone "upwind" difference schemes) and does not use any explicit sub-grid approximation and semi-empirical models of turbulence. Convective mixing is considered as a principal part of conservation law.