Record Nr. UNINA9910816353403321 Bioreactors: design, operation and novel applications / / edited by **Titolo** Carl-Fredrik Mandenius Pubbl/distr/stampa Weinheim, Germany:,: Wiley-VCH Verlag GmbH & Company KGaA,, [2016] ©2016 **ISBN** 3-527-68338-0 1-5231-1519-X 3-527-68336-4 3-527-68337-2 Descrizione fisica 1 online resource (603 p.) Bioreactors - Design and construction Soggetti 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 and index. Nota di contenuto Title Page; Copyright; Table of Contents; Preface; List of Contributors; Chapter 1: Challenges for Bioreactor Design and Operation; 1.1 Introduction; 1.2 Biotechnology Milestones with Implications on Bioreactor Design: 1.3 General Features of Bioreactor Design: 1.4 Recent Trends in Designing and Operating Bioreactors; 1.5 The Systems Biology Approach: 1.6 Using Conceptual Design Methodology: 1.7 An Outlook on Challenges for Bioreactor Design and Operation; References; Chapter 2: Design and Operation of Microbioreactor Systems for Screening and Process Development: 2.1 Introduction 2.2 Key Engineering Parameters and Properties in Microbioreactor Design and Operation 2.3 Design of Novel Stirred and Bubble Aerated Microbioreactors; 2.4 Robotics for Microbioreactors; 2.5 Fed-Batch and Continuous Operation of Microbioreactors; 2.6 Monitoring and Control of Microbioreactors; 2.7 Conclusion; References; Chapter 3: Bioreactors on a Chip; 3.1 Introduction; 3.2 Advantages of Microsystems; 3.3 Scaling Down the Bioreactor to the Microfluidic Format; 3.4 Microfabrication Methods for Bioreactors-On-A-Chip; 3.5 Fabrication

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