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HOODS AND CABINETS EMPLOYING HEPA FILTRATION; 4.6 WORKING WITHIN UNIDIRECTIONAL AIRFLOW CABINETS AND MICROBIOLOGICAL SAFETY CABINETS; 4.7 TESTING OF CLASS I AND CLASS II MICROBIOLOGICAL SAFETY CABINETS; 4.8 CLEANROOMS FOR CELL CULTURE USE; REFERENCES; 5 Cell Cycle in Bioprocesses; 5.1 INTRODUCTION; 5.2 THE CELL CYCLE; 5.3 METHODS FOR DESCRIBING THE CELLCYCLE; 5.4 IMPORTANCE OF THE CELL CYCLE IN PROCESS BIOTECHNOLOGY; REFERENCES; 6 Cell Growth and Protein Expression Kinetics; 6.1 INTRODUCTION; 6.2 BATCH CULTURE KINETICS
6.3 CONTINUOUS CULTURE KINETICS6.4 FED-BATCH AND PERFUSION CULTURES; 6.5 CONCLUSIONS; NOMENCLATURE; REFERENCES; 7 Cell Viability Measurement; 7.1 INTRODUCTION; 7.2 PERMEABILITY ASSAYS; 7.3 FUNCTIONAL ASSAYS; 7.4 FLOW CYTOMETRY; 7.5 PHYSICAL METHODS; REFERENCES; 8 Contamination Detection in Animal Cell Culture; 8.1 INTRODUCTION; 8.2 HISTORICAL PERSPECTIVES; 8.3 REGULATORY ISSUES; 8.4 MANUFACTURING AND SAFETY TESTING STANDARDS; 8.5 EXAMPLES OF VIRAL CONTAMINANTS; 8.6 DETECTION OF VIRAL CONTAMINANTS IN CELL LINES; 8.7 TESTING RAW MATERIALS; 8.8 DETECTION OF MYCOPLASMAS; 8.9 BACTERIA AND FUNGI
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Sommario/riassunto

Biotechnology represents a major area of research focus, and many universities are developing academic programs in the field. This guide to biomanufacturing contains carefully selected articles from Wiley's Encyclopedia of Industrial Biotechnology, Bioprocess, Bioseparation, and Cell Technology as well as new articles (80 in all,) and features the same breadth and quality of coverage and clarity of presentation found in the original. For instructors, advanced students, and those involved in regulatory compliance, this two-volume desk reference offers an accessible and comprehensive reso