

Bioprocess Optimization and Digital Bio-manufacturing: Global Markets

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Abstracts

Report Scope

The biggest challenge for a biopharmaceutical company is to produce a high-quality product in a cost-effective manner. The need to harness the first-to-market advantage as well as meet the growing pressure to control costs from consumers, insurance companies and governments has led many biopharmaceutical manufacturers to resort to innovative methods of production. Implementation of process intensification (continuous manufacturing) and use of disposable technologies has significantly boosted the production productivities. Integration of statistical modeling with standard bioprocess optimization methods has also been a positive strategy in achieving the goals of faster production time and better process design.

There is a growing demand from the FDA and other regulatory authorities to comply with the stringent regulatory guidelines of quality and traceability. There is humongous amount of data generated at every step of pharmaceutical manufacturing, including research and development, pilot plant and commercial manufacturing. Various automation systems at the company and at the contract manufacturing sites also generate large amounts of information. The resulting non-standard nomenclature and varying data structures complicate the communication systems, thereby delaying product release. Digital manufacturing (DM) is coming to transform pharmaceutical manufacturing in a big way. The connection between equipment, materials and people brought about by IIoT as well as data analytics platforms are leading to more efficient and faster processes.

The new report for BCC Research on the topic “Bioprocess Optimization and Digital Biomanufacturing: Global Markets” provides a comprehensive analysis of the

bioprocess optimization and digital biomanufacturing market in a global context, including market forecasts and sales through the year 2023. The report will analyze the market by segmenting it into the technologies and solutions that matter the most, namely Manufacturing Technologies, Analytical and Process Control Technologies, and Software. Each of these segments have been sub-divided into different types (as detailed later). This study surveys the bioprocess optimization and digital biomanufacturing market in all the geographic regions, including North America, Europe and emerging markets. The emerging markets segment includes regions like India, China, Korea, Taiwan, Africa, Australia, New Zealand, Canada, Latin America, and more. The applications of digital biomanufacturing in bioprocess optimization, biomanufacturing, and flexible manufacturing have also been dealt with.

The report discusses the critical issues impacting the adoption of DM in pharmaceuticals, as well as emerging trends in DM technologies. It also features the new developments and new product launches in the global market.

The report provides relevant patent analysis and comprehensive profiles of market players in the industry. The industry structure chapter focuses on changing market trends, important manufacturers and suppliers, and their market shares and product offerings. The chapter also covers mergers and acquisitions and any other collaborations or partnerships that happened during the evaluation period of this report that are expected to shape the industry.

BCC Research's new report elaborates on the strengths, weaknesses, threats and opportunities of the global bioprocess optimization and DM market. Any regulatory changes or new initiatives are highlighted.

Excluded from this report are applications of digital manufacturing in other aspects of technology that are not related to pharmaceuticals. Additionally, the focus is on the biopharmaceutical market and not on small molecule drugs.

Report Includes

91 data tables and 30 additional tables

An overview of the global markets for bioprocess optimization and digital bio-manufacturing (DM)

Evaluation of role of process analytical technologies (PAT) in DM

A look into the new developments, new product launches and regulatory aspects in the global market

Discussion about critical issues impacting the adoption of DM in pharmaceuticals as well as emerging trends in DM technologies

Detailed analysis of industry 4.0 in DM

Comprehensive profiles of market players in the industry, including Agilent Technologies, Thermo Fisher Scientific Inc., Waters Corp., Shimadzu Corp., Sartorius Stedium Biotech GmbH, GE Healthcare, and ABB Ltd.

Contents

CHAPTER 1 INTRODUCTION

Study Goals and Objectives
Reasons for Doing This Study
Scope of Report
Information Sources
Methodology
Geographic Breakdown
Analyst's Credentials
BCC Custom Research
Related BCC Research Reports

CHAPTER 2 SUMMARY AND HIGHLIGHTS

Key Findings of the Report

CHAPTER 3 MARKET AND TECHNOLOGY BACKGROUND

Biologics Manufacturing Process
Upstream Processing
Cell Harvesting and Clarification
Downstream Processing
Bioprocess Optimization
Design of Experiments (DoE)
Response Surface Methodology (RSM)
Cost Estimation in Biomanufacturing Process Design
Risk Assessment
Industry 4.0-Digital Biomanufacturing
Some Aspects of Digital Biomanufacturing
Role of Process Analytical Technology in Digital Biomanufacturing
Multivariate Tools for Design, Data Acquisition and Analysis
Process Analyzers
Process Control Tools
Continuous Improvement and Knowledge Management Tools

CHAPTER 4 MARKET BREAKDOWN BY TECHNOLOGY TYPE

Market by Type
Market Overview
Market Revenue
Market Shares
Manufacturing Technologies
Market Overview
Market Revenue
Market Shares
Analytical and Process Control Technologies
Market Overview
Market Revenue
Market Shares
Software
Market Overview
Market Revenue
Market Shares

CHAPTER 5 MARKET BREAKDOWN BY APPLICATION

Case Studies
Market by Application
Market Overview
Market Revenue
Market Shares
Bioprocess Optimization and Process Analytics
Market Overview
Market Revenue
Market Shares
Biomufacturing Process Automation and Control
Market Overview
Market Revenue
Market Shares
Flexible Manufacturing
Market Overview
Market Revenue
Market Shares
Other Applications
Market Overview
Market Revenue

Market Shares

CHAPTER 6 MARKET BREAKDOWN BY REGION

Market by Region

Global Market Overview

Market Revenue

Market Shares

Manufacturing Technologies

Market Overview

Market Revenue

Market Shares

Bioreactors

Chromatography-based Separation and Purification Techniques

Filtration

Centrifugation

Analytical and Process Control Technologies

Market Overview

Market Revenue

Market Shares

Sensors and Probes

Automation and Industrial Process Control Technologies

Analytical Chromatography

Spectrophotometry

Software

Market Overview

Market Revenue

Market Shares

Bioprocess Optimization and Data Analytics Software

Industrial Control and Automation Software

Other Software

CHAPTER 7 INDUSTRY STRUCTURE

Industry Trends

Mergers and Acquisitions

Collaborations and Partnerships

Digitalized Supply Chain

Inventory Management

Leading Manufacturers/Suppliers of Bioprocess Optimization and Digital
Biomanufacturing
Manufacturing Technologies
Analytical and Process Control Technologies
Software

CHAPTER 8 PATENT REVIEW/ NEW DEVELOPMENTS

Patents on Bioprocess Optimization and Digital Biomanufacturing
Patent Analysis
Patents by Year
Patents by Category
Patents by Type of Assignee
Patents on Manufacturing Technologies by Type
Bioreactors
Chromatography-based Separation and Purification Techniques
Filtration
Centrifugation
Patents on Analytical and Process Control Technologies by Type
Sensors and Probes
Automation and Industrial Process Control Technologies
Analytical Chromatography
Spectrophotometry
Patents on Software Related to Bioprocess Optimization and Digital Biomanufacturing
Patents by Type
Patents by Year
Patents by Company
Patents by Assignee Country
Patents by Type of Assignee

CHAPTER 9 NEW DEVELOPMENTS/ REGULATORY ASPECTS

New Developments
New Developments in Manufacturing Technologies
New Developments in Analytical and Process Control Technologies
New Developments in Software
Regulatory Aspects
FDA's Quality Metrics Program
Guidelines Related to Analytical Method Validation: General Concepts

Guidelines Related to Downstream Processing: General Concepts
Guidelines Related to Single-Use Technologies
Guidelines Related to Data Integrity
Good Automation Manufacturing Practices (GAMP)
Instrumentation, Systems, and Automation (ISA) Society–88 and 95 Standards

CHAPTER 10 CRITICAL ISSUES IN ADOPTING DIGITAL BIOMANUFACTURING

Regulatory Constraints
Issues with Disposable Technologies
Process Scalability Issues
Challenges in Continuous Bioprocessing
Lack of Standards and Guidelines
Technological Challenges at Upstream Processing Stages
Technological Challenges at Downstream Processing Stages
Scaling-up of Chromatography
Integration of Different Unit Operations
Lack of Knowledge and Examples in the Industry
Issues in Implementation of PAT in Biological Processes
Cyber Security

CHAPTER 11 EMERGING TRENDS IN DIGITAL BIOMANUFACTURING

Continuous Bioprocessing
Continuous Cell Retention Technologies
Continuous Chromatography
Single-use Technologies
Automation
Acquisition of Finesse Solutions by Thermo Fisher Scientific
GE Healthcare Invests in Zenith Technologies
Sartorius Stedium Introduces New BIOSTAT STR Bioreactors
Data Integrity
Process Analytical Technologies and Smart Sensors
Real-time Analytics Solutions

CHAPTER 12 ANALYSIS OF MARKET OPPORTUNITIES

Strengths of Bioprocess Optimization and Digital Biomanufacturing Market
Rising Incidence of Diseases

Growing Market for Biopharmaceuticals
New Product Launches
Need for Regulatory Compliance
Contract Manufacturing Organizations (CMOs) and Contract Research Organizations (CROs)
Drive to Reduce Cost and Improve Process Productivity
Mergers and Acquisitions
Challenges of Bioprocess Optimization and Digital Biomanufacturing Market
Lack of Skilled Labor
Cost of Equipment
Interoperability Challenges
Unharmonized Smart Manufacturing Standards
Opportunities for Bioprocess Optimization and Digital Biomanufacturing Market
Favorable Government Initiatives
Emerging Markets
Advances in Sensor Technology
Process Analytical Technology Initiative
Threats to the Bioprocess Optimization and Digital Biomanufacturing Market
Technical Issues and Cyber Threats

CHAPTER 13 COMPANY PROFILES

3M CO.
ABB GROUP
AB SCIEX LLC
AGILENT TECHNOLOGIES INC.
ALERTENTERPRISE
ALVA LAVAL AB
APPLIED MATERIALS INC.
APPLIKON BIOTECHNOLOGY BV
BIO-RAD LABORATORIES INC.
BRUKER CORP.
DANAHER CORP.
EMERSON ELECTRIC CO.
EPPENDORF AG
ENDRESS+HAUSER AG
GEA GROUP
GE Healthcare Life Sciences
HAMILTON CO.

HITACHI HIGH-TECHNOLOGIES CORP.
HONEYWELL INTERNATIONAL INC.
JASCO INC.
KNAUER WISSENSCHAFTLICHE GER?TE GMBH
KOKI HOLDINGS CO. LTD. (FORMERLY HITACHI KOKI CO. LTD.)
METTLER-TOLEDO GMBH
MICROSOFT CORP.
MILLIPORESIGMA
NOVASEP INC.
ORACLE INTERNATIONAL CORP.
PALL CORP.
PARKER HANNIFIN CORP.
PENDOTECH
PERKINELMER INC.
PHENOMENEX INC.
PSC BIOTECH CORP.
PUROLITE CORP.
REPLIGEN CORP.
ROCKWELL AUTOMATION INC.
SARTORIUS STEDIUM BIOTECH GMBH
SAP SE
SCHNEIDER ELECTRIC SA
SHIMADZU CORP.
SIEMENS AG
SPARTA SYSTEMS INC.
SPECTRIS PLC
THERMO FISHER SCIENTIFIC INC.
TOSOH BIOSCIENCE LLC
WATERS CORP.
WERUM IT SOLUTIONS GMBH
YOKAGAWA ELECTRIC CORP.

CHAPTER 14 APPENDIX: ACRONYMS, ABBREVIATIONS AND GLOSSARY

List Of Tables

LIST OF TABLES

Summary Table: Global Market for Bioprocess Optimization and Digital Biomanufacturing, by Region, Through 2023

Table 1: List of Biologics Produced in E. coli

Table 2: List of Biologics Produced in Mammalian Cells

Table 3: Popular Types of Bioreactors Used for Cell Culture Processes

Table 4: Differences Between Industrial Control Systems

Table 5: Features of Different Sensor Types

Table 6: Features of Different Sensor Types Based on Spectroscopy

Table 7: Global Market for Bioprocess Optimization and Digital Biomanufacturing, by Type, Through 2023

Table 8: Global Market Shares of Bioprocess Optimization and Digital Biomanufacturing, by Type, 2017

Table 9: Global Market for Manufacturing Technologies, by Type, Through 2023

Table 10: Global Market Shares of Manufacturing Technologies, by Type, 2017

Table 11: Global Market for Analytical and Process Control Technologies, by Type, Through 2023

Table 12: Global Market Shares of Analytical and Process Control Technologies, by Type, 2017

Table 13: Global Market for Software, by Type, Through 2023

Table 14: Global Market Shares of Software, by Type, 2017

Table 15: Global Market for Bioprocess Optimization and Digital Biomanufacturing, by Application, Through 2023

Table 16: Global Market Shares of Bioprocess Optimization and Digital Biomanufacturing, by Application, 2017

Table 17: Global Market for Bioprocess Optimization and Process Analytics, by Region, Through 2023

Table 18: Global Market Shares of Bioprocess Optimization, by Region, 2017

Table 19: Global Market for Biomanufacturing Process Automation and Control, by Region, Through 2023

Table 20: Global Market Shares of Biomanufacturing Process Automation and Control, by Region, 2017

Table 21: Global Market for Flexible Manufacturing, by Region, Through 2023

Table 22: Global Market Shares of Flexible Manufacturing, by Region, 2017

Table 23: Global Market for Other Applications, by Region, Through 2023

Table 24: Global Market Shares of Other Applications, by Region, 2017

Table 25: Global Market for Bioprocess Optimization and Digital Biomanufacturing, by Region, Through 2023

Table 26: Global Market Shares of Bioprocess Optimization and Digital Biomanufacturing, by Region, 2017

Table 27: Global Market for Manufacturing Technologies, by Region, Through 2023

Table 28: Global Market Shares of Manufacturing Technologies, by Region, 2017

Table 29: Global Market for Bioreactors, by Region, Through 2023

Table 30: Global Market for Chromatography-based Separation and Purification Techniques, by Region, Through 2023

Table 31: Global Market for Filtration, by Region, Through 2023

Table 32: Global Market for Centrifugation, by Region, Through 2023

Table 33: Global Market for Analytical and Process Control Technologies, by Region, Through 2023

Table 34: Global Market Shares of Analytical and Process Control Technologies, by Region, 2017

Table 35: Global Market for Sensors and Probes, by Region, Through 2023

Table 36: Global Market for Automation and Industrial Process Control Technologies, by Region, Through 2023

Table 37: Global Market for Analytical Chromatography, by Region, Through 2023

Table 38: Global Market for Spectrophotometry, by Region, Through 2023

Table 39: Global Market for Software, by Region, Through 2023

Table 40: Global Market Shares of Software, by Region, 2017

Table 41: Global Market for Bioprocess Optimization and Data Analytics Software, by Region, Through 2023

Table 42: Global Market for Industrial Control and Automation Software, by Region, Through 2023

Table 43: Global Market for Other Software, by Region, Through 2023

Table 44: Mergers and Acquisitions in the Bioprocess Optimization and Digital Biomanufacturing Market, 2016 Through July 2018

Table 45: Collaborations and Partnerships in the Bioprocess Optimization and Digital Biomanufacturing Market, 2016 Through July 2018

Table 46: Leading Manufacturers/Suppliers of Bioreactors, 2017

Table 47: Global Market Shares of Leading Manufacturers/Suppliers of Bioreactors, 2017

Table 48: Leading Manufacturers/Suppliers of Chromatography-based Separation and Purification Techniques, 2017

Table 49: Global Market Shares of Leading Manufacturers/Suppliers of Chromatography-based Separation and Purification Techniques, 2017

Table 50: Leading Manufacturers/Suppliers of Filtration, 2017

- Table 51: Global Market Shares of Leading Manufacturers/Suppliers of Filtration, 2017
- Table 52: Leading Manufacturers/Suppliers of Centrifugation, 2017
- Table 53: Global Market Shares of Leading Manufacturers/Suppliers of Centrifugation, 2017
- Table 54: Leading Manufacturers/Suppliers of Sensors and Probes, 2017
- Table 55: Global Market Shares of Leading Manufacturers/Suppliers of Sensors and Probes, 2017
- Table 56: Leading Manufacturers/Suppliers of Analytical Chromatography, 2017
- Table 57: Global Market Shares of Leading Manufacturers/Suppliers of Analytical Chromatography, 2017
- Table 58: Leading Manufacturers/Suppliers of Spectrophotometry, 2017
- Table 59: Global Market Shares of Leading Manufacturers/Suppliers of Spectrophotometry, 2017
- Table 60: Leading Manufacturers/Suppliers of Automation and Industrial Control Systems, 2017
- Table 61: Global Market Shares of Leading Manufacturers/Suppliers of Automation and Industrial Control Systems, 2017
- Table 62: Leading Manufacturers/Suppliers of Bioprocess Optimization and Data Analytics Software, 2017
- Table 63: Global Market Shares of Leading Manufacturers/Suppliers of Bioprocess Optimization and Data Analytics Software, 2017
- Table 64: Leading Manufacturers/Suppliers of Automation and Industrial Control Software, 2017
- Table 65: Global Market Shares of Leading Manufacturers/Suppliers of Automation and Industrial Control Software, 2017
- Table 66: Leading Manufacturers/Suppliers of Other Software, 2017
- Table 67: Global Market Shares of Leading Manufacturers/Suppliers of Other Software, 2017
- Table 68: Basic Aspects of Patents
- Table 69: Representative U.S. Patents on Chromatography-Related Technologies, 2016 Through Aug. 7, 2018
- Table 70: U.S. Patents Issued on Bioprocess Optimization and Digital Biomanufacturing, by Year, 2016 Through Aug. 7, 2018
- Table 71: U.S. Patents Issued on Bioprocess Optimization and Digital Biomanufacturing, by Category, 2016 Through Aug. 7, 2018
- Table 72: U.S. Patents Issued on Bioprocess Optimization and Digital Biomanufacturing, by Type of Assignee, 2016 Through Aug. 7, 2018
- Table 73: U.S. Patents Issued on Manufacturing Technologies, by Type, 2016 Through Aug. 7, 2018

Table 74: U.S. Patents Issued on Bioreactors, by Year, 2016 Through Aug. 7, 2018

Table 75: U.S. Patents Issued on Bioreactors, by Company, 2016 Through Aug. 7, 2018

Table 76: U.S. Patents Issued on Bioreactors, by Assignee Country, 2016 Through Aug. 7, 2018

Table 77: U.S. Patents Issued on Bioreactors, by Type of Assignee, 2016 Through Aug. 7, 2018

Table 78: U.S. Patents Issued on Chromatography-based Separation and Purification Techniques, by Year, 2016 Through Aug. 7, 2018

Table 79: U.S. Patents Issued on Chromatography-based Separation and Purification Techniques, by Company, 2016 Through Aug. 7, 2018

Table 80: U.S. Patents Issued on Chromatography-based Separation and Purification Techniques, by Assignee Country, 2016 Through Aug. 7, 2018

Table 81: U.S. Patents Issued on Chromatography-based Separation and Purification Techniques, by Type of Assignee, 2016 Through Aug. 7, 2018

Table 82: U.S. Patents Issued on Filtration, by Year, 2016 Through Aug. 7, 2018

Table 83: U.S. Patents Issued on Filtration, by Company, 2016 Through Aug. 7, 2018

Table 84: U.S. Patents Issued on Filtration, by Assignee Country, 2016 Through Aug. 7, 2018

Table 85: U.S. Patents Issued on Filtration, by Type of Assignee, 2016 Through Aug. 7, 2018

Table 86: U.S. Patents Issued on Centrifugation, by Year, 2016 Through Aug. 7, 2018

Table 87: U.S. Patents Issued on Centrifugation, by Company, 2016 Through Aug. 7, 2018

Table 88: U.S. Patents Issued on Centrifugation, by Assignee Country, 2016 Through Aug. 7, 2018

Table 89: U.S. Patents Issued on Centrifugation, by Type of Assignee, 2016 Through Aug. 7, 2018

Table 90: U.S. Patents Issued on Automation and Process Control Technologies, by Type, 2016 Through Aug. 7, 2018

Table 91: U.S. Patents Issued on Sensors and Probes, by Year, 2016 Through Aug. 7, 2018

Table 92: U.S. Patents Issued on Sensors and Probes, by Company, 2016 Through Aug. 7, 2018

Table 93: U.S. Patents Issued on Sensors and Probes, by Assignee Country, 2016 Through Aug. 7, 2018

Table 94: U.S. Patents Issued on Sensors and Probes, by Type of Assignee, 2016 Through Aug. 7, 2018

Table 95: U.S. Patents Issued on Automation and Industrial Process Control Technologies, by Year, 2016 Through Aug. 7, 2018

- Table 96: U.S. Patents Issued on Automation and Industrial Process Control Technologies, by Company, 2016 Through Aug. 7, 2018
- Table 97: U.S. Patents Issued on Automation and Industrial Process Control Technologies, by Assignee Country, 2016 Through Aug. 7, 2018
- Table 98: U.S. Patents Issued on Automation and Industrial Process Control Technologies, by Type of Assignee, 2016 Through Aug. 7, 2018
- Table 99: U.S. Patents Issued on Analytical Chromatography, by Year, 2016 Through Aug. 7, 2018
- Table 100: U.S. Patents Issued on Analytical Chromatography, by Company, 2016 Through Aug. 7, 2018
- Table 101: U.S. Patents Issued on Analytical Chromatography, by Assignee Country, 2016 Through Aug. 7, 2018
- Table 102: U.S. Patents Issued on Analytical Chromatography, by Type of Assignee, 2016 Through Aug. 7, 2018
- Table 103: U.S. Patents Issued on Spectrophotometry, by Year, 2016 Through Aug. 7, 2018
- Table 104: U.S. Patents Issued on Spectrophotometry, by Company, 2016 Through Aug. 7, 2018
- Table 105: U.S. Patents Issued on Spectrophotometry, by Assignee Country, 2016 Through Aug. 7, 2018
- Table 106: U.S. Patents Issued on Spectrophotometry, by Type of Assignee, 2016 Through Aug. 7, 2018
- Table 107: U.S. Patents Issued on Software, by Type, 2016 Through Aug. 7, 2018
- Table 108: U.S. Patents Issued on Software, by Year, 2016 Through Aug. 7, 2018
- Table 109: U.S. Patents Issued on Software, by Company, 2016 Through Aug. 7, 2018
- Table 110: U.S. Patents Issued on Software, by Assignee Country, 2016 Through Aug. 7, 2018
- Table 111: U.S. Patents Issued on Software, by Type of Assignee, 2016 Through Aug. 7, 2018
- Table 112: New Product Developments in Manufacturing Technologies, 2016 Through July 2018
- Table 113: New Product Developments in Analytical and Process Control Technologies, 2016 Through July 2018
- Table 114: New Product Developments in Software, 2016 Through July 2018
- Table 115: List of Regulatory Guidelines Related to Biopharmaceutical Manufacturing
- Table 116: Functionalities Required to be Validated in SCADA and ERP Systems
- Table 117: Warning Letters Issued In lieu of Data Integrity Issues, 2016 Through July 2018
- Table 118: Examples of Continuous Processing Developments

Table 119: Acronyms/Abbreviations Used in Bioprocess Optimization and Digital
Biomanufacturing

Table 120: Glossary of Terms Used in Bioprocess Optimization and Digital
Biomanufacturing

List Of Figures

LIST OF FIGURES

Summary Figure: Global Market for Bioprocess Optimization and Digital Biomanufacturing, by Region, 2016-2023

Figure 1: A Typical Biopharmaceutical Manufacturing Process

Figure 2: Steps and Layers in Industrial Internet of Things

Figure 3: Global Market for Bioprocess Optimization and Digital Biomanufacturing, by Type, 2016–2023

Figure 4: Global Market Shares of Bioprocess Optimization and Digital Biomanufacturing, by Type, 2017

Figure 5: Global Market for Bioprocess Optimization and Digital Biomanufacturing, by Type, 2016–2023

Figure 6: Global Market Shares of Manufacturing Technologies, by Type, 2017

Figure 7: Global Market for Analytical and Process Control Technologies, by Type, 2016–2023

Figure 8: Global Market Shares of Analytical and Process Control Technologies, by Type, 2017

Figure 9: Global Market for Software, by Type, 2016–2023

Figure 10: Global Market Shares of Software, by Type, 2017

Figure 11: Global Market for Bioprocess Optimization and Digital Biomanufacturing, by Application, 2016–2023

Figure 12: Global Market Shares of Bioprocess Optimization and Digital Biomanufacturing, by Application, 2017

Figure 13: Global Market for Bioprocess Optimization and Process Analytics, by Region, 2016–2023

Figure 14: Global Market Shares of Manufacturing Technologies, by Type, 2017

Figure 15: Global Market for Biomanufacturing Process Automation and Control, by Region, 2016–2023

Figure 16: Global Market Shares of Biomanufacturing Process Automation and Control, by Region, 2017

Figure 17: Global Market for Flexible Manufacturing, by Region, 2016–2023

Figure 18: Global Market Shares of Flexible Manufacturing, by Region, 2017

Figure 19: Global Market for Other Applications, by Region, 2016–2023

Figure 20: Global Market Shares of Other Applications, by Region, 2017

Figure 21: Global Market for Bioprocess Optimization and Digital Biomanufacturing, by Region, 2016-2023

Figure 22: Global Market Shares of Bioprocess Optimization and Digital

Biomanufacturing, by Region, 2017

Figure 23: Global Market for Manufacturing Technologies, by Region, 2016–2023

Figure 24: Global Market Shares of Manufacturing Technologies, by Region, 2017

Figure 25: Global Market for Bioreactors, by Region, 2016–2023

Figure 26: Global Market for Chromatography-based Separation and Purification Techniques, by Region, 2016–2023

Figure 27: Global Market for Filtration, by Region, 2016–2023

Figure 28: Global Market for Centrifugation, by Region, 2016–2023

Figure 29: Global Market for Analytical and Process Control Technologies, by Region, 2016–2023

Figure 30: Global Market Shares of Analytical and Process Control Technologies, by Region, 2017

Figure 31: Global Market for Sensors and Probes, by Region, 2016–2023

Figure 32: Global Market for Automation and Industrial Process Control Technologies, by Region, 2016–2023

Figure 33: Global Market for Analytical Chromatography, by Region, 2016–2023

Figure 34: Global Market for Spectrophotometry, by Region, 2016–2023

Figure 35: Global Market for Software, by Region, 2016–2023

Figure 36: Global Market Shares of Software, by Region, 2017

Figure 37: Global Market for Bioprocess Optimization and Data Analytics Software, by Region, 2016–2023

Figure 38: Global Market for Industrial Control and Automation Software, by Region, 2016–2023

Figure 39: Global Market for Other Software, by Region, 2016–2023

Figure 40: Global Market Shares of Leading Manufacturers/Suppliers of Bioreactors, 2017

Figure 41: Global Market Shares of Leading Manufacturers/Suppliers of Chromatography-based Separation and Purification Techniques, 2017

Figure 42: Global Market Shares of Leading Manufacturers/Suppliers of Filtration, 2017

Figure 43: Global Market Shares of Leading Manufacturers/Suppliers of Centrifugation, 2017

Figure 44: Global Market Shares of Leading Manufacturers/Suppliers of Sensors and Probes, 2017

Figure 45: Global Market Shares of Leading Manufacturers/Suppliers of Analytical Chromatography, 2017

Figure 46: Global Market Shares of Leading Manufacturers/Suppliers of Spectrophotometry, 2017

Figure 47: Global Market Shares of Leading Manufacturers/Suppliers of Automation and Industrial Control Systems, 2017

Figure 48: Global Market Shares of Leading Manufacturers/Suppliers of Bioprocess Optimization and Data Analytics Software, 2017

Figure 49: Global Market Shares of Leading Manufacturers/Suppliers of Automation and Industrial Control Software, 2017

Figure 50: Global Market Shares of Leading Manufacturers/Suppliers of Other Software, 2017

Figure 51: U.S. Patents Issued on Bioprocess Optimization and Digital Biomanufacturing Technologies, by Year, 2016 Through Aug. 7, 2018

Figure 52: U.S. Patents Issued on Bioprocess Optimization and Digital Biomanufacturing, by Category, 2016 Through Aug. 7, 2018

Figure 53: U.S. Patents Issued on Bioprocess Optimization and Digital Biomanufacturing, by Type of Assignee, 2016 Through Aug. 7, 2018

Figure 54: U.S. Patents Issued on Manufacturing Technologies, by Type, 2016 Through Aug. 7, 2018

Figure 55: U.S. Patents Share Issued on Bioreactors, by Year, 2016 Through Aug. 7, 2018

Figure 56: U.S. Patents Issued on Bioreactors, by Company, 2016 Through Aug. 7 2018

Figure 57: U.S. Patents Issued on Bioreactors, by Assignee Country, 2016 Through Aug. 7, 2018

Figure 58: U.S. Patents Issued on Bioreactors, by Type of Assignee, 2016 Through Aug. 7, 2018

Figure 59: U.S. Patents Issued on Chromatography-based Separation and Purification Techniques, by Year, 2016 Through Aug. 7, 2018

Figure 60: U.S. Patents Issued on Chromatography-based Separation and Purification Techniques, by Company, 2016 Through Aug. 7, 2018

Figure 61: U.S. Patents Issued on Chromatography-based Separation and Purification Techniques, by Assignee Country, 2016 Through Aug. 7, 2018

Figure 62: U.S. Patents Issued on Chromatography-based Separation and Purification Techniques, by Type of Assignee, 2016 Through Aug. 7, 2018

Figure 63: U.S. Patents Issued on Filtration, by Year, 2016 Through Aug. 7, 2018

Figure 64: U.S. Patents Issued on Filtration, by Company, 2016 Through Aug. 7, 2018

Figure 65: U.S. Patents Issued on Filtration, by Assignee Country, 2016 Through Aug. 7, 2018

Figure 66: U.S. Patents Issued on Filtration, by Type of Assignee, 2016 Through Aug. 7, 2018

Figure 67: U.S. Patents Issued on Centrifugation, by Year, 2016 Through Aug. 7, 2018

Figure 68: U.S. Patents Issued on Centrifugation, by Company, 2016 Through Aug. 7, 2018

Figure 69: U.S. Patents Issued on Centrifugation, by Assignee Country, 2016 Through

Aug. 7, 2018

Figure 70: U.S. Patents Issued on Centrifugation, by Type of Assignee, 2016 Through Aug. 7, 2018

Figure 71: U.S. Patents Issued on Automation and Process Control Technologies, by Type, 2016 Through Aug. 7, 2018

Figure 72: U.S. Patents Issued on Sensors and Probes, by Year, 2016 Through Aug. 7, 2018

Figure 73: U.S. Patents Issued on Sensors and Probes, by Company, 2016 Through Aug. 7, 2018

Figure 74: U.S. Patents Issued on Sensors and Probes, by Assignee Country, 2016 Through Aug. 7, 2018

Figure 75: U.S. Patents Issued on Sensors and Probes, by Type of Assignee, 2016 Through Aug. 7, 2018

Figure 76: U.S. Patents Issued on Automation and Industrial Process Control Technologies, by Year, 2016 Through Aug. 7, 2018

Figure 77: U.S. Patents Issued on Automation and Industrial Process Control Technologies, by Company, 2016 Through Aug. 7, 2018

Figure 78: U.S. Patents Issued on Automation and Industrial Process Control Technologies, by Assignee Country, 2016 Through Aug. 7, 2018

Figure 79: U.S. Patents Issued on Automation and Industrial Process Control Technologies, by Type of Assignee, 2016 Through Aug. 7, 2018

Figure 80: U.S. Patents Issued on Analytical Chromatography, by Year, 2016 Through Aug. 7, 2018

Figure 81: U.S. Patents Issued on Analytical Chromatography, by Company, 2016 Through Aug. 7, 2018

Figure 82: U.S. Patents Issued on Analytical Chromatography, by Assignee Country, 2016 Through Aug. 7, 2018

Figure 83: U.S. Patents Issued on Analytical Chromatography, by Type of Assignee, 2016 Through Aug. 7, 2018

Figure 84: U.S. Patents Issued on Spectrophotometry, by Year, 2016 Through Aug. 7, 2018

Figure 85: U.S. Patents Issued on Spectrophotometry, by Company, 2016 Through Aug. 7, 2018

Figure 86: U.S. Patents Issued on Spectrophotometry, by Assignee Country, 2016 Through Aug. 7, 2018

Figure 87: U.S. Patents Issued on Spectrophotometry, by Type of Assignee, 2016 Through Aug. 7, 2018

Figure 88: U.S. Patents Issued on Software, by Type, 2016 Through Aug. 7, 2018

Figure 89: U.S. Patents Issued on Software, by Year, 2016 Through Aug. 7, 2018

Figure 90: U.S. Patents Issued on Software, by Company, 2016 Through Aug. 7, 2018

Figure 91: U.S. Patents Issued on Software, by Assignee Country, 2016 Through Aug. 7, 2018

Figure 92: U.S. Patents Issued on Software, by Type of Assignee, 2016 Through Aug. 7, 2018

Figure 93: SWOT Analysis of the Bioprocess Optimization and Digital Biomanufacturing Market

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