

IR Spectroscopy Market by Technology (FTIR, Dispersive IR), Type (Near-infrared Spectroscopy, Mid-infrared Spectroscopy), Product Type (Benchtop Spectroscopes), End-user Industry (Healthcare & Pharmaceutical, Chemicals) - Global Forecast to 2029

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Report description:

The global IR spectroscopy market was valued at USD 1.2 billion in 2024 and is projected to reach USD 1.6 billion by 2029, it is expected to register a CAGR of 6.5% during the forecast period. Continuous technological advancements in IR spectroscopy is driving the growth of the IR spectroscopy market. Whereas availability of used IR spectroscopy devices is restraining the growth of the IR spectroscopy market.

"The Micro Spectroscopes is expected to grow at the second highest CAGR during the forecast period."

The Micro spectroscopes segment is expected to grow at a second highest CAGR of 6.7% during the forecast period. Micro spectroscopes allows for the analysis of samples at a microscopic level, providing high spatial resolution. This is particularly valuable in fields such as materials science, forensics, and biology, where the distribution of chemical components within a sample is critical. These spectroscopes are applicable across a broad range of industries and scientific disciplines. It can be used to analyze organic and inorganic materials, polymers, pharmaceuticals, biological samples, and more. This versatility makes it an attractive tool for researchers and practitioners in various fields.

The near-infrared spectroscopy segment is likely to grow at the second highest CAGR during the forecast period. The hardware segment is expected to grow at a CAGR of 6.7% during the forecast period. Near-infrared spectroscopy allows for the non-destructive analysis of samples. This means that samples can be analyzed without altering or damaging them, which is particularly advantageous in industries such as pharmaceuticals, food, agriculture, and forensics. NIRS is versatile and can be

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applied to a wide range of materials and substances, including solids, liquids, and gases. It can be used for qualitative and quantitative analysis, making it applicable in diverse fields such as pharmaceuticals, agriculture, environmental monitoring, and biomedical research.

"The Asia Pacific segment is likely to grow at the second highest CAGR during the forecast period."

The market in Asia Pacific is expected to witness the second highest CAGR of 6.5% during the forecast period. Agriculture is the main occupation for many countries in the region and Ir spectroscopy is used to assess soil properties such as organic matter content, pH, nutrient levels (e.g., nitrogen, phosphorus, potassium), and texture. This information is crucial for optimizing fertilizer application, managing soil health, and ensuring crop productivity. IR spectroscopy can be used to analyze the organic matter content, nitrogen content, phosphorus content, and other important fertility parameters of soil. This information can be used to develop targeted fertilizer application programs and to improve soil health.

Breakdown of primaries

The study contains insights from various industry experts, ranging from component suppliers to Tier 1 companies and OEMs. The break-up of the primaries is as follows:

- By Company Type Tier 1 35%, Tier 2 45%, Tier 3 20%
- By Designation- C-level Executives 44%, Directors 38%, Others 18%
- By Region-North America 30%, Europe 25%, Asia Pacific 26%, RoW 19%

The IR spectroscopy market is dominated by a few globally established players such as Shimadzu Corporation (Japan), ZEISS (Germany), PerkinElmer Inc. (US), Agilent Technologies, Inc. (US), Bruker Corporation (US), ABB (Switzerland), Thermo Fisher Scientific Inc. (US), Horiba, Ltd. (Japan), Sartorius AG (Germany), Hitachi High-Tech Corporation (Japan). The study includes an in-depth competitive analysis of these key players in the IR spectroscopy market, with their company profiles, recent developments, and key market strategies.

Research Coverage:

The report segments the IR spectroscopy market and forecasts its size by technology, type, product type, end-user industry, and region. The report also discusses the drivers, restraints, opportunities, and challenges pertaining to the market. It gives a detailed view of the market across four main regions-North America, Europe, Asia Pacific, and RoW. Supply chain analysis has been included in the report, along with the key players and their competitive analysis in the IR spectroscopy ecosystem.

Key Benefits to Buy the Report:

- Analysis of key drivers (Growth in the number of healthcare institutions and clinical research centers, Increase in R&D investments in healthcare and pharmaceuticals industry, Continuous technological advancements in IR spectroscopy). Restraint (Technical limitations of IR spectroscopy, Availability of used IR spectroscopy devices), Opportunity (Rising use of NIR spectroscopy in seed quality detection, Growing Product development for biological Research), Challenges (High Cost of IR spectroscopy products)
- Product Development/Innovation: Detailed insights on upcoming technologies, research and development activities, and new product launches in the IR spectroscopy market.
- Market Development: Comprehensive information about lucrative markets the report analyses the IR spectroscopy market across varied regions
- Market Diversification: Exhaustive information about new products and services, untapped geographies, recent developments, and investments in the IR spectroscopy market.
- Competitive Assessment: In-depth assessment of market shares, growth strategies, and service offerings of leading players like

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Shimadzu Corporation (Japan), ZEISS (Germany), PerkinElmer Inc. (US), Agilent Technologies, Inc. (US), Bruker Corporation (US), ABB (Switzerland), Thermo Fisher Scientific Inc. (US), Horiba, Ltd. (Japan), Sartorius AG (Germany), Hitachi High-Tech Corporation (Japan) among others in the IR spectroscopy market.

Table of Contents:

1⊓INTRODUCTION□28

- 1.1□STUDY OBJECTIVES□28
- 1.2 MARKET DEFINITION 28
- 1.3 STUDY SCOPE 29
- 1.3.1 MARKETS COVERED 29

FIGURE 1∏IR SPECTROSCOPY MARKET SEGMENTATION [29]

- 1.3.2 REGIONAL SCOPE 29
- 1.3.3∏INCLUSIONS AND EXCLUSIONS∏30

TABLE 1 | INCLUSIONS AND EXCLUSIONS | 30

- 1.4 TYEARS CONSIDERED 30
- 1.5 CURRENCY CONSIDERED 31
- 1.6 UNIT CONSIDERED 31
- 1.7 LIMITATIONS 31
- 1.8 STAKEHOLDERS 31
- 1.9□SUMMARY OF CHANGES□32
- 1.9.1□IMPACT OF RECESSION□32
- 2 RESEARCH METHODOLOGY 33
- 2.1□INTRODUCTION□33

FIGURE 2□RESEARCH DESIGN□33

2.2 RESEARCH DATA 34

FIGURE 3 RESEARCH APPROACH 34

- 2.2.1 SECONDARY DATA 35
- 2.2.1.1 Major secondary sources 35
- 2.2.1.2 Key data from secondary sources 35
- 2.2.2∏PRIMARY DATA∏36
- 2.2.2.1 Key participants in primary interviews 36
- 2.2.2.2 Breakdown of primary interviews 36
- 2.2.2.3 Key data from primary sources 37
- 2.2.2.4 Key industry insights 37
- 2.3 FACTOR ANALYSIS 38
- 2.3.1 SUPPLY-SIDE ANALYSIS 38

FIGURE 4 REVENUE GENERATED BY IR SPECTROSCOPY SALES, BY KEY PLAYERS 38

FIGURE 5□REVENUE ANALYSIS OF SHIMADZU CORPORATION□39

2.3.2 DEMAND-SIDE ANALYSIS 39

FIGURE 6 REVENUE GENERATED BY IR SPECTROSCOPY SALES, BY END USER 39

2.4□MARKET SIZE ESTIMATION METHODOLOGY□40

FIGURE 7 SUPPLY-SIDE ANALYSIS 40

- 2.4.1 BOTTOM-UP APPROACH 11
- 2.4.1.1∏Approach to arrive at market size using bottom-up analysis (demand side)∏41

FIGURE 8 BOTTOM-UP APPROACH 41

- 2.4.2 TOP-DOWN APPROACH 42
- 2.4.2.1 Approach to arrive at market size using top-down analysis (supply side) 42

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FIGURE 9∏TOP-DOWN APPROACH∏42

2.5 MARKET BREAKDOWN AND DATA TRIANGULATION 143

FIGURE 10 DATA TRIANGULATION 43

2.6 RESEARCH ASSUMPTIONS 44

TABLE 2 RESEARCH ASSUMPTIONS 44

TABLE 3 GROWTH FORECAST ASSUMPTIONS 45

2.7 RESEARCH LIMITATIONS 45

2.8 RISK ASSESSMENT 45

TABLE 4 RISK ASSESSMENT 45

2.9 PARAMETERS TO ANALYZE RECESSION IMPACT 146

TABLE 5∏PARAMETERS TO ANALYZE RECESSION IMPACT∏46

3∏EXECUTIVE SUMMARY∏47

FIGURE 11∏IR SPECTROSCOPY MARKET, 2020-2029 (USD MILLION)∏47

FIGURE 12∏FAR-INFRARED SPECTROSCOPY SEGMENT TO WITNESS HIGHEST CAGR DURING FORECAST PERIOD∏48

FIGURE 13∏PORTABLE SPECTROSCOPES SEGMENT TO REGISTER HIGHEST CAGR DURING FORECAST PERIOD∏48

FIGURE 14∏BIOMEDICAL RESEARCH & BIOMATERIALS SEGMENT TO REGISTER HIGHEST CAGR DURING FORECAST PERIOD∏49

FIGURE 15 ASIA PACIFIC TO BE FASTEST-GROWING MARKET DURING FORECAST PERIOD 49

4 PREMIUM INSIGHTS 51

4.1 ATTRACTIVE GROWTH OPPORTUNITIES FOR PLAYERS IN IR SPECTROSCOPY MARKET 51

FIGURE 16 GROWING DEPLOYMENT OF IR SPECTROSCOPY SYSTEMS IN HEALTHCARE & PHARMACEUTICALS INDUSTRY TO DRIVE MARKET 151

4.2□IR SPECTROSCOPY MARKET, BY TYPE□51

FIGURE 17 MID-INFRARED SPECTROSCOPY TO LEAD MARKET DURING FORECAST PERIOD 51

4.3∏IR SPECTROSCOPY MARKET FOR HEALTHCARE & PHARMACEUTICALS, BY REGION∏52

FIGURE 18∏NORTH AMERICA TO ACCOUNT FOR LARGEST MARKET SHARE DURING FORECAST PERIOD∏52

4.4∏IR SPECTROSCOPY MARKET, BY PRODUCT TYPE∏52

FIGURE 19∏BENCHTOP SPECTROSCOPES TO BE DOMINANT SEGMENT DURING FORECAST PERIOD∏52

4.5□IR SPECTROSCOPY MARKET, BY END USER□53

FIGURE 20 HEALTHCARE & PHARMACEUTICALS SEGMENT TO HAVE LARGEST MARKET SHARE DURING FORECAST PERIOD 53

4.6∏IR SPECTROSCOPY MARKET, BY REGION∏53

FIGURE 21 NORTH AMERICA TO SHOWCASE LARGEST SHARE OF IR SPECTROSCOPY MARKET IN 2029 53

4.7∏IR SPECTROSCOPY MARKET, BY COUNTRY∏54

FIGURE 22 CHINA TO RECORD HIGHEST CAGR DURING FORECAST PERIOD 54

5□MARKET OVERVIEW□55

5.1□INTRODUCTION□55

5.2 MARKET DYNAMICS 55

FIGURE 23 IR SPECTROSCOPY MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES 55

5.2.1 DRIVERS 56

FIGURE 24 IMPACT OF DRIVERS 56

5.2.1.1∏Growing number of healthcare institutions and clinical research centers∏56

5.2.1.2 ☐Increasing R&D investments in healthcare & pharmaceutical industry ☐56

5.2.1.3 Continuous technological advancements in IR spectroscopy 57

5.2.2∏RESTRAINTS∏57

FIGURE 25□IMPACT OF RESTRAINTS□57

5.2.2.1 Technical constraints 58

5.2.2.2 Limited lifespan of IR spectroscopy devices 58

5.2.3 OPPORTUNITIES 59

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FIGURE 26⊓IMPACT OF OPPORTUNITIES□59

- 5.2.3.1 Seed quality detection using NIR spectroscopy 59
- 5.2.3.2∏Focus on drug development and biological research∏59
- 5.2.4 CHALLENGES 60

FIGURE 27□IMPACT OF CHALLENGES□60

- 5.2.4.1 High cost of IR spectroscopy products 60
- 5.3 TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS 61
- FIGURE 28 TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS 61
- 5.4 PRICING ANALYSIS 62
- 5.4.1 AVERAGE SELLING PRICE TREND OF KEY PLAYERS, BY PRODUCT TYPE 62
- FIGURE 29∏AVERAGE SELLING PRICE TREND OF KEY PLAYERS, BY TOP PRODUCT TYPE∏62
- TABLE 6∏AVERAGE SELLING PRICE TREND, BY TOP PRODUCT TYPE, 2015-2023 (USD)∏62
- 5.4.2∏AVERAGE SELLING PRICE TREND, BY REGION∏63
- TABLE 7 AVERAGE SELLING PRICE TREND, BY REGION, 2019-2023 (USD) 63
- 5.5 VALUE CHAIN ANALYSIS 63
- FIGURE 30 □ VALUE CHAIN ANALYSIS □ 63
- 5.6 ECOSYSTEM ANALYSIS 64
- FIGURE 31∏ECOSYSTEM MAPPING∏64
- TABLE 8 ROLE OF COMPANIES IN ECOSYSTEM 65
- 5.7∏INVESTMENT AND FUNDING SCENARIO∏66
- FIGURE 32∏INVESTMENT AND FUNDING SCENARIO∏66
- 5.8 TECHNOLOGY ANALYSIS 66
- 5.8.1 | KEY TECHNOLOGIES | 66
- 5.8.1.1 Micro-FTIR spectroscopy 66
- 5.8.2 COMPLEMENTARY TECHNOLOGIES 67
- 5.8.2.1 Raman spectroscopy 67
- 5.8.2.2 Mass spectrometry 67
- 5.8.3 ADJACENT TECHNOLOGIES 67
- 5.8.3.1 Miniaturization and portability 67
- 5.8.3.2 Data analysis software 68
- 5.9 PATENT ANALYSIS 68
- TABLE 9 INNOVATIONS AND PATENT REGISTRATIONS, 2021-2023 69
- FIGURE 33 PATENT ANALYSIS, 2013-2023 71
- FIGURE 34 REGIONAL ANALYSIS OF PATENTS, 2023 71
- 5.10 TRADE DATA ANALYSIS 72
- 5.10.1 IMPORT DATA 72
- FIGURE 35 IMPORT DATA FOR HS CODE 902730-COMPLIANT PRODUCTS, BY COUNTRY, 2018-2022 (USD MILLION) 72
- TABLE 10 IMPORT SCENARIO FOR HS CODE 902730-COMPLIANT PRODUCTS, BY COUNTRY, 2018-2022 (USD MILLION) 173
- 5.10.2 EXPORT DATA 74
- FIGURE 36 EXPORT DATA FOR HS CODE 902730-COMPLIANT PRODUCTS, BY COUNTRY, 2018-2022 (USD MILLION) 74
- TABLE 11 EXPORT SCENARIO FOR HS CODE 902730-COMPLIANT PRODUCTS, BY COUNTRY, 2018-2022 (USD MILLION) [74
- 5.11 KEY CONFERENCES AND EVENTS 75
- TABLE 12∏KEY CONFERENCES AND EVENTS, 2024-2025∏75
- 5.12 CASE STUDY ANALYSIS 76
- 5.12.1

 ∏NIR METHODS OPTIMIZED USING ANTARIS FT-NIR AND CHEMOMETRIC MODELING

 76
- 5.12.2 USE OF FTIR SPECTROSCOPY FOR ENVIRONMENTAL PLASTICS RESEARCH 77
- 5.12.3 IMPROVED STONE DETECTION WITH MULTIVARIATE ANALYSIS SOFTWARE 77

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5.12.4 ENHANCED CHEMICAL COMPOUND DETECTION USING DIAMOND-TURNED MIRRORS AND BEAMSPLITTERS 77

5.13 TARIFF AND REGULATORY LANDSCAPE 78

5.13.1 COUNTRY-WISE TARIFFS FOR HS CODE 902730-COMPLIANT PRODUCTS 78

TABLE 13∏MFN TARIFF FOR HS CODE 902730-COMPLIANT PRODUCTS EXPORTED BY US, 2023∏78

5.13.2 ☐ REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS ☐ 78

TABLE 14∏NORTH AMERICA: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS∏78

TABLE 15∏EUROPE: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS∏79

TABLE 16 ASIA PACIFIC: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 79

TABLE 17 REST OF THE WORLD: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS 80

5.13.3 REGULATORY STANDARDS 80

5.14 PORTER'S FIVE FORCES ANALYSIS 81

TABLE 18∏IMPACT OF PORTER'S FIVE FORCES∏81

FIGURE 37 PORTER'S FIVE FORCES ANALYSIS 81

5.14.1 THREAT OF NEW ENTRANTS □82

5.14.2 THREAT OF SUBSTITUTES 82

5.14.3 BARGAINING POWER OF SUPPLIERS 182

5.14.4 BARGAINING POWER OF BUYERS 82

5.14.5 INTENSITY OF COMPETITIVE RIVALRY 83

5.15 KEY STAKEHOLDERS AND BUYING CRITERIA 83

 $5.15.1 \square KEY STAKEHOLDERS IN BUYING PROCESS \square 83$

FIGURE 38 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS, BY TECHNOLOGY 183

TABLE 19 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS, BY TECHNOLOGY (%) [83

5.15.2 BUYING CRITERIA 84

FIGURE 39 KEY BUYING CRITERIA, BY PRODUCT TYPE 84

TABLE 20 KEY BUYING CRITERIA, BY PRODUCT TYPE 84

6∏IR SPECTROSCOPY MARKET, BY TECHNOLOGY 85

6.1∏INTRODUCTION∏86

FIGURE 40 IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2024-2029 (USD MILLION) 86

TABLE 21 IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2020-2023 (USD MILLION) 86

TABLE 22 IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2024-2029 (USD MILLION) 86

6.2□FOURIER TRANSFORM INFRARED SPECTROSCOPY□87

6.2.1∏INCREASING ADOPTION IN FORENSICS AND PHARMACEUTICAL RESEARCH TO DRIVE MARKET∏87

TABLE 23[FOURIER TRANSFORM INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2020-2023 (USD MILLION)[88]

TABLE 24 FOURIER TRANSFORM INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2024-2029 (USD MILLION) 88

6.3 DISPERSIVE INFRARED SPECTROSCOPY 88

6.3.1□GROWING USE IN CATALYSIS, SURFACE SCIENCE, ENVIRONMENTAL SCIENCE, AND MATERIALS CHARACTERIZATION TO DRIVE MARKET∏88

TABLE 25 DISPERSIVE INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2020-2023 (USD MILLION) 89 TABLE 26 DISPERSIVE INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2024-2029 (USD MILLION) 89 TO SPECTROSCOPY MARKET, BY TYPE 90

7.1∏INTRODUCTION∏91

FIGURE 41 ⊓IR SPECTROSCOPY MARKET, BY TYPE, 2024-2029 (USD MILLION) □91

TABLE 27 IR SPECTROSCOPY MARKET, BY TYPE, 2020-2023 (USD MILLION) 191

TABLE 28 \square IR SPECTROSCOPY MARKET, BY TYPE, 2024-2029 (USD MILLION) \square 91

7.2 NEAR-INFRARED SPECTROSCOPY 92

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```
7.2.1 RISING FOCUS ON DELIVERING HIGH-QUALITY PRODUCTS TO DAIRY AND AGRICULTURE INDUSTRIES TO DRIVE MARKET 92 FIGURE 42 NEAR-INFRARED SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2024-2029 (USD MILLION) 93 TABLE 29 NEAR-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2020-2023 (USD MILLION) 93 TABLE 30 NEAR-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2024-2029 (USD MILLION) 94 TABLE 31 NEAR-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY END USER, 2020-2023 (USD MILLION) 94 TABLE 32 NEAR-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY END USER, 2024-2029 (USD MILLION) 94 7.3 MID-INFRARED SPECTROSCOPY (MIR) 94
```

7.3.1 INCREASING DEMAND FOR REAL-TIME MONITORING OF FOOD QUALITY TO DRIVE MARKET 94
FIGURE 43 MID-INFRARED SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2024-2029 (USD MILLION) 95
TABLE 33 MID-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2020-2023 (USD MILLION) 95
TABLE 34 MID-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2024-2029 (USD MILLION) 96
TABLE 35 MID-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY END USER, 2020-2023 (USD MILLION) 96
TABLE 36 MID-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY END USER, 2024-2029 (USD MILLION) 96
7.4 FAR-INFRARED SPECTROSCOPY 97

7.4.1 SURGE IN DEMAND FOR SAFE HEALTHCARE APPLICATIONS TO DRIVE MARKET □97

FIGURE 44 FAR-INFRARED SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2024-2029 (USD MILLION) 97

TABLE 37 FAR-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2020-2023 (USD MILLION) 98
TABLE 38 FAR-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2024-2029 (USD MILLION) 98
TABLE 39 FAR-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY END USER, 2020-2023 (USD MILLION) 98
TABLE 40 FAR-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY END USER, 2024-2029 (USD MILLION) 99
8 INFRARED SPECTROSCOPY MARKET, BY PRODUCT TYPE 100

8.1∏INTRODUCTION∏101

FIGURE 45 IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2024-2029 (USD MILLION) 101

TABLE 41 INFRARED SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2020-2023 (USD MILLION) 101

TABLE 42 INFRARED SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2024-2029 (USD MILLION) 101

TABLE 43 INFRARED SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2020-2023 (THOUSAND UNITS) 102

TABLE 44 INFRARED SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2024-2029 (THOUSAND UNITS) 102

8.2 IBENCHTOP SPECTROSCOPES 102

8.2.1 GROWING NEED FOR COST-EFFECTIVE AND COMPACT SYSTEMS TO DRIVE MARKET 102

TABLE 45 BENCHTOP SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2020-2023 (USD MILLION) 103

TABLE 46 BENCHTOP SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2024-2029 (USD MILLION) 103

TABLE 47 BENCHTOP SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TYPE, 2020-2023 (USD MILLION) 104

TABLE 48 BENCHTOP SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TYPE, 2024-2029 (USD MILLION) 104

8.3 MICRO SPECTROSCOPES 104

8.3.1 | FORENSIC SCIENCE AND TISSUE ENGINEERING APPLICATIONS TO DRIVE MARKET | 104

TABLE 49 | MICRO SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2020-2023 (USD MILLION) | 105

TABLE 50 | MICRO SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2024-2029 (USD MILLION) | 105

TABLE 51 | MICRO SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TYPE, 2020-2023 (USD MILLION) | 106

TABLE 52 | MICRO SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TYPE, 2024-2029 (USD MILLION) | 106

8.4 | PORTABLE SPECTROSCOPES | 106

8.4.1 EASE OF USE FOR NON-TECHNICAL OPERATORS TO DRIVE MARKET 106

TABLE 53 PORTABLE SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2020-2023 (USD MILLION) 106 TABLE 54 PORTABLE SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2024-2029 (USD MILLION) 107 TABLE 55 PORTABLE SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TYPE, 2020-2023 (USD MILLION) 107 TABLE 56 PORTABLE SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TYPE, 2024-2029 (USD MILLION) 107 8.5 HYPHENATED SPECTROSCOPES 107

8.5.1 INCREASING NEED FOR HIGH-THROUGHPUT ANALYSIS IN VARIOUS INDUSTRIES TO DRIVE MARKET 107

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TABLE 57 HYPHENATED SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2020-2023 (USD MILLION) 108 TABLE 58[HYPHENATED SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2024-2029 (USD MILLION)[108] TABLE 59∏HYPHENATED SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TYPE, 2020-2023 (USD MILLION)∏108 TABLE 60∏HYPHENATED SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TYPE, 2024-2029 (USD MILLION)∏109 9∏IR SPECTROSCOPY MARKET, BY END USER∏110 9.1⊓INTRODUCTION⊓111 FIGURE 46∏IR SPECTROSCOPY MARKET, BY END USER, 2024-2029 (USD MILLION)∏111 TABLE 61 IR SPECTROSCOPY MARKET, BY END USER, 2020-2023 (USD MILLION) 111 TABLE 62 IR SPECTROSCOPY MARKET, BY END USER, 2024-2029 (USD MILLION) 112 9.2 | HEALTHCARE & PHARMACEUTICALS | 112 9.2.1 ⊓RISING USE IN DIAGNOSTIC AND THERAPEUTIC APPLICATIONS TO DRIVE MARKET 112 TABLE 63∏HEALTHCARE & PHARMACEUTICALS: IR SPECTROSCOPY MARKET, BY REGION, 2020-2023 (USD MILLION)∏113 TABLE 64⊓HEALTHCARE & PHARMACEUTICALS: IR SPECTROSCOPY MARKET, BY REGION, 2024-2029 (USD MILLION)∏113 TABLE 65⊓HEALTHCARE & PHARMACEUTICALS: IR SPECTROSCOPY MARKET, BY TYPE, 2020-2023 (USD MILLION)∏114 TABLE 66∏HEALTHCARE & PHARMACEUTICALS: IR SPECTROSCOPY MARKET, BY TYPE, 2024-2029 (USD MILLION)∏114 TABLE 67 | HEALTHCARE & PHARMACEUTICALS: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2020-2023 (USD MILLION) | 114 TABLE 68 | HEALTHCARE & PHARMACEUTICALS: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2024-2029 (USD MILLION) | 114 9.3 □ CHEMICALS □ 115 9.3.1 INCREASING NEED TO IDENTIFY MOLECULAR CHARACTERISTICS FOR VARIOUS APPLICATIONS TO DRIVE MARKET 115 TABLE 69∏CHEMICALS: IR SPECTROSCOPY MARKET, BY REGION, 2020-2023 (USD MILLION)∏115 TABLE 70 CHEMICALS: IR SPECTROSCOPY MARKET, BY REGION, 2024-2029 (USD MILLION) 116 TABLE 71 CHEMICALS: IR SPECTROSCOPY MARKET, BY TYPE, 2020-2023 (USD MILLION) 116 TABLE 72∏CHEMICALS: IR SPECTROSCOPY MARKET, BY TYPE, 2024-2029 (USD MILLION)∏116 TABLE 73∏CHEMICALS: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2020-2023 (USD MILLION)∏116 TABLE 74∏CHEMICALS: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2024-2029 (USD MILLION)∏117 9.4∏FOOD & BEVERAGES∏117 9.4.1∏GROWING NEED TO ASSESS QUALITY AND SAFETY OF FOOD & BEVERAGES TO DRIVE MARKET∏117 TABLE 75 FOOD & BEVERAGES: IR SPECTROSCOPY MARKET, BY REGION, 2020-2023 (USD MILLION) 118 TABLE 76□FOOD & BEVERAGES: IR SPECTROSCOPY MARKET, BY REGION, 2024-2029 (USD MILLION)□118 TABLE 77∏FOOD & BEVERAGES: IR SPECTROSCOPY MARKET, BY TYPE, 2020-2023 (USD MILLION)∏118 TABLE 78∏FOOD & BEVERAGES: IR SPECTROSCOPY MARKET, BY TYPE, 2024-2029 (USD MILLION)∏118 TABLE 79∏FOOD & BEVERAGES: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2020-2023 (USD MILLION)∏119

TABLE 80∏FOOD & BEVERAGES: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2024-2029 (USD MILLION)∏119 9.5⊓ENVIRONMENTAL⊓119

9.5.1 SURGE IN NEED TO DETECT AND QUANTIFY AIR, WATER, AND SOIL POLLUTANTS TO DRIVE MARKET 119 TABLE 81∏ENVIRONMENTAL: IR SPECTROSCOPY MARKET, BY REGION, 2020-2023 (USD MILLION)∏120 TABLE 82∏ENVIRONMENTAL: IR SPECTROSCOPY MARKET, BY REGION, 2024-2029 (USD MILLION)∏120 TABLE 83 PENVIRONMENTAL: IR SPECTROSCOPY MARKET, BY TYPE, 2020-2023 (USD MILLION) 120 TABLE 84 TENVIRONMENTAL: IR SPECTROSCOPY MARKET, BY TYPE, 2024-2029 (USD MILLION) T120 TABLE 85∏ENVIRONMENTAL: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2020-2023 (USD MILLION)∏121 TABLE 86∏ENVIRONMENTAL: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2024-2029 (USD MILLION)∏121 9.6□BIOMEDICAL RESEARCH & BIOMATERIALS□121

9.6.1∏GROWING TECHNOLOGICAL ADVANCEMENTS IN PROTEOMICS AND GENOMICS TO DRIVE MARKET∏121 TABLE 87 BIOMEDICAL RESEARCH & BIOMATERIALS: IR SPECTROSCOPY MARKET, BY REGION, 2020-2023 (USD MILLION) 121 TABLE 88 BIOMEDICAL RESEARCH & BIOMATERIALS: IR SPECTROSCOPY MARKET, BY REGION, 2024-2029 (USD MILLION) 122 TABLE 89 IDMOMEDICAL RESEARCH & BIOMATERIALS: IR SPECTROSCOPY MARKET, BY TYPE, 2020-2023 (USD MILLION) 122 TABLE 90 BIOMEDICAL RESEARCH & BIOMATERIALS: IR SPECTROSCOPY MARKET, BY TYPE, 2024-2029 (USD MILLION) 122

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TABLE 91 BIOMEDICAL RESEARCH & BIOMATERIALS: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2020-2023 (USD MILLION) 122 TABLE 92 BIOMEDICAL RESEARCH & BIOMATERIALS: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2024-2029 (USD MILLION) 123 9.7 CONSUMER ELECTRONICS 123

9.7.1 INCREASING INTEGRATION IN MOBILE DEVICES TO DRIVE MARKET 123

TABLE 93 CONSUMER ELECTRONICS: IR SPECTROSCOPY MARKET, BY REGION, 2020-2023 (USD MILLION) 123

TABLE 94∏CONSUMER ELECTRONICS: IR SPECTROSCOPY MARKET, BY REGION, 2024-2029 (USD MILLION)∏124

TABLE 95[CONSUMER ELECTRONICS: IR SPECTROSCOPY MARKET, BY TYPE, 2020-2023 (USD MILLION)[124]

TABLE 96[CONSUMER ELECTRONICS: IR SPECTROSCOPY MARKET, BY TYPE, 2024-2029 (USD MILLION)[124]

TABLE 97[CONSUMER ELECTRONICS: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2020-2023 (USD MILLION)[124

TABLE 98[CONSUMER ELECTRONICS: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2024-2029 (USD MILLION)[125]

10 ⊓IR SPECTROSCOPY MARKET, BY REGION П126

10.1∏INTRODUCTION∏127

FIGURE 47 IR SPECTROSCOPY MARKET, BY REGION, 2024-2029 (USD MILLION) II 127

TABLE 99∏IR SPECTROSCOPY MARKET, BY REGION, 2020-2023 (USD MILLION)∏127

TABLE 100∏IR SPECTROSCOPY MARKET, BY REGION, 2024-2029 (USD MILLION)∏128

10.2 NORTH AMERICA 129

FIGURE 48 NORTH AMERICA: IR SPECTROSCOPY MARKET SNAPSHOT 129

10.2.1 RECESSION IMPACT ANALYSIS 129

TABLE 101 NORTH AMERICA: IR SPECTROSCOPY MARKET, BY COUNTRY, 2020-2023 (USD MILLION) 130

TABLE 102∏NORTH AMERICA: IR SPECTROSCOPY MARKET, BY COUNTRY, 2024-2029 (USD MILLION)∏130

TABLE 103 NORTH AMERICA: IR SPECTROSCOPY MARKET, BY END USER, 2020-2023 (USD MILLION) 130

TABLE 104 NORTH AMERICA: IR SPECTROSCOPY MARKET, BY END USER, 2024-2029 (USD MILLION) 131

10.2.2∏US∏131

10.2.2.1 Surge in healthcare spending to drive market 131

10.2.3 CANADA 131

10.2.3.1 Growing focus on reviving aircraft manufacturing to drive market 131

10.2.4 | MEXICO | 132

10.2.4.1 □Increasing need to monitor air quality to drive market □132

10.3[EUROPE[]132

FIGURE 49∏EUROPE: IR SPECTROSCOPY MARKET SNAPSHOT∏133

10.3.1 RECESSION IMPACT ANALYSIS 133

TABLE 105 EUROPE: IR SPECTROSCOPY MARKET, BY COUNTRY, 2020-2023 (USD MILLION) 134

TABLE 106 EUROPE: IR SPECTROSCOPY MARKET, BY COUNTRY, 2024-2029 (USD MILLION) 134

TABLE 107 EUROPE: IR SPECTROSCOPY MARKET, BY END USER, 2020-2023 (USD MILLION) 134

TABLE 108 TEUROPE: IR SPECTROSCOPY MARKET, BY END USER, 2024-2029 (USD MILLION) T135

10.3.2∏UK∏135

10.3.2.1 Growing emphasis by government on adopting IR spectroscopy technology to drive market 135

10.3.3 GERMANY 135

 $10.3.3.1 \\ \square Increasing \ shift \ toward \ climate-neutral \ mobility \ to \ drive \ market \\ \square 135$

10.3.4 FRANCE 136

10.3.4.1 Biomedical and food & beverages applications to drive market 136

10.3.5∏ITALY∏136

10.3.5.1 Surge in presence of laboratories specializing in IR spectroscopy to drive market 136

10.3.6 REST OF EUROPE 136

10.4

☐ASIA PACIFIC

☐ 137

FIGURE 50 ASIA PACIFIC: IR SPECTROSCOPY MARKET SNAPSHOT 137

10.4.1 RECESSION IMPACT ANALYSIS 138

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TABLE 109 ASIA PACIFIC: IR SPECTROSCOPY MARKET, BY COUNTRY, 2020-2023 (USD MILLION) 138

TABLE 110 ASIA PACIFIC: IR SPECTROSCOPY MARKET, BY COUNTRY, 2024-2029 (USD MILLION) 138

TABLE 111∏ASIA PACIFIC: IR SPECTROSCOPY MARKET, BY END USER, 2020-2023 (USD MILLION)∏138

TABLE 112 ASIA PACIFIC: IR SPECTROSCOPY MARKET, BY END USER, 2024-2029 (USD MILLION) 139

10.4.2 CHINA 139

10.4.2.1 Growing use in security and surveillance applications to drive market 139

10.4.3 JAPAN 139

10.4.3.1 Growing demand for monitoring manufacturing processes to drive market 139

10.4.4 INDIA 140

10.4.4.1 Increased funding for scientific study to drive market 140

10.4.5 SOUTH KOREA 140

10.4.5.1 Booming semiconductors industry to drive market 140

10.4.6 REST OF ASIA PACIFIC 141

10.5 REST OF THE WORLD 141

10.5.1 RECESSION IMPACT ANALYSIS 141

TABLE 113 REST OF THE WORLD: IR SPECTROSCOPY MARKET, BY REGION, 2020-2023 (USD MILLION) 141

TABLE 114 ⊓REST OF THE WORLD: IR SPECTROSCOPY MARKET, BY REGION, 2024-2029 (USD MILLION) □ 142

TABLE 115 TREST OF THE WORLD: IR SPECTROSCOPY MARKET, BY END USER, 2020-2023 (USD MILLION) T142

TABLE 116 TREST OF THE WORLD: IR SPECTROSCOPY MARKET, BY END USER, 2024-2029 (USD MILLION) 142

10.5.2 SOUTH AMERICA 143

10.5.2.1 Increasing adoption of IR spectroscopy technology by sportspersons and medical professionals to drive market 143

10.5.3 MIDDLE EAST & AFRICA 143

TABLE 117 MIDDLE EAST & AFRICA: IR SPECTROSCOPY MARKET, BY REGION, 2020-2023 (USD MILLION) 143

TABLE 118 MIDDLE EAST & AFRICA: IR SPECTROSCOPY MARKET, BY REGION, 2024-2029 (USD MILLION) 143

10.5.3.1∏GCC∏144

10.5.3.1.1 ∏Rising adoption of IR spectrometers by research institutes, distributors, and universities to drive market ☐ 144

10.5.3.2 Rest of Middle East & Africa 144

11 COMPETITIVE LANDSCAPE 145

11.1 OVERVIEW 145

11.2 STRATEGIES ADOPTED BY KEY PLAYERS 145

TABLE 119 STRATEGIES ADOPTED BY KEY PLAYERS 145

11.2.1 PRODUCT PORTFOLIO 147

11.2.2 REGIONAL FOCUS 147

11.2.3 MANUFACTURING FOOTPRINT 147

11.2.4 ORGANIC/INORGANIC GROWTH STRATEGIES 147

11.3 MARKET SHARE ANALYSIS 148

FIGURE 51 MARKET SHARE ANALYSIS, 2023 148

TABLE 120 DEGREE OF COMPETITION, 2023 148

11.4 REVENUE ANALYSIS 149

FIGURE 52 REVENUE ANALYSIS, 2019-2023 149

11.5 COMPANY VALUATION AND FINANCIAL METRICS 149

FIGURE 53 COMPANY VALUATION 149

FIGURE 54∏FINANCIAL METRICS∏150

11.6 BRAND COMPARISON 150

FIGURE 55 BRAND COMPARISON 150

11.7 COMPANY EVALUATION MATRIX: KEY PLAYERS 151

11.7.1 STARS 151

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11.7.2 EMERGING LEADERS 151

11.7.3 PERVASIVE PLAYERS 151

11.7.4 PARTICIPANTS 151

FIGURE 56 IR SPECTROSCOPY MARKET: COMPANY EVALUATION MATRIX, 2023 152

11.7.5□COMPANY FOOTPRINT□153

FIGURE 57 IR SPECTROSCOPY MARKET: COMPANY FOOTPRINT 153
TABLE 121 IR SPECTROSCOPY MARKET: PRODUCT TYPE FOOTPRINT 154

TABLE 122 IR SPECTROSCOPY MARKET: TYPE FOOTPRINT 155

TABLE 123 IR SPECTROSCOPY MARKET: TECHNOLOGY FOOTPRINT 156
TABLE 124 IR SPECTROSCOPY MARKET: END USER FOOTPRINT 157
TABLE 125 IR SPECTROSCOPY MARKET: REGION FOOTPRINT 158
11.8 COMPANY EVALUATION MATRIX: STARTUPS/SMES 159

11.8.1 PROGRESSIVE COMPANIES 159
11.8.2 RESPONSIVE COMPANIES 159
11.8.3 DYNAMIC COMPANIES 159

11.8.4□STARTING BLOCKS□159

FIGURE 58 IR SPECTROSCOPY MARKET: STARTUP/SME EVALUATION MATRIX, 2023 I160

11.8.5 COMPETITIVE BENCHMARKING 161

TABLE 126 IR SPECTROSCOPY MARKET: KEY STARTUPS/SMES 161

TABLE 127 IR SPECTROSCOPY MARKET: COMPETITIVE BENCHMARKING 162

11.9 COMPETITIVE SCENARIOS AND TRENDS 163

11.9.1 PRODUCT LAUNCHES 163

TABLE 128 IR SPECTROSCOPY MARKET: PRODUCT LAUNCHES, JANUARY 2020-FEBRUARY 2024 163

11.9.2 DEALS 164

TABLE 129 IR SPECTROSCOPY MARKET: DEALS, JANUARY 2020-FEBRUARY 2024 164

?

12□COMPANY PROFILES□166

(Business Overview, Products/Solutions/Services Offered, Recent Developments, and MnM View (Key strengths/Right to Win,

Strategic Choices Made, and Weaknesses and Competitive Threats))*

12.1 KEY PLAYERS 166

12.1.1 SHIMADZU CORPORATION 166

TABLE 130 SHIMADZU CORPORATION: COMPANY OVERVIEW 166 FIGURE 59 SHIMADZU CORPORATION: COMPANY SNAPSHOT 167

TABLE 131 SHIMADZU CORPORATION: PRODUCTS/SOLUTIONS/SERVICES OFFERED 168

TABLE 132 SHIMADZU CORPORATION: PRODUCT LAUNCHES 170

TABLE 133 SHIMADZU CORPORATION: DEALS 170

12.1.2 AGILENT TECHNOLOGIES, INC. 172

TABLE 134

[AGILENT TECHNOLOGIES, INC.: COMPANY OVERVIEW

[172]

FIGURE 60

[AGILENT TECHNOLOGIES, INC.: COMPANY SNAPSHOT

[173]

TABLE 135 AGILENT TECHNOLOGIES, INC.: PRODUCTS/SOLUTIONS/SERVICES OFFERED 173

TABLE 136∏AGILENT TECHNOLOGIES, INC.: PRODUCT LAUNCHES∏175

TABLE 137 AGILENT TECHNOLOGIES, INC.: DEALS 175

12.1.3∏BRUKER∏177

TABLE 138 BRUKER: COMPANY OVERVIEW 177 FIGURE 61 BRUKER: COMPANY SNAPSHOT 178

TABLE 139 BRUKER: PRODUCTS/SOLUTIONS/SERVICES OFFERED 179

TABLE 140 BRUKER: PRODUCT LAUNCHES 181

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12.1.4 HORIBA, LTD. 183

TABLE 141 HORIBA, LTD.: COMPANY OVERVIEW 183 FIGURE 62 HORIBA, LTD.: COMPANY SNAPSHOT 184

TABLE 142 HORIBA, LTD.: PRODUCTS/SOLUTIONS/SERVICES OFFERED 184

12.1.5 PERKINELMER INC. 187

TABLE 143 PERKINELMER INC.: COMPANY OVERVIEW 187 FIGURE 63 PERKINELMER INC.: COMPANY SNAPSHOT 188

TABLE 144 PERKINELMER INC.: PRODUCTS/SOLUTIONS/SERVICES OFFERED 188

TABLE 145 PERKINELMER INC.: PRODUCT LAUNCHES 191

TABLE 146 | PERKINELMER INC.: DEALS | 191

12.1.6 | ZEISS | 193

TABLE 147 ZEISS: COMPANY OVERVIEW 193 FIGURE 64 ZEISS: COMPANY SNAPSHOT 194

TABLE 148 ZEISS: PRODUCTS/SOLUTIONS/SERVICES OFFERED 195

TABLE 149 ZEISS: PRODUCT LAUNCHES 196

12.1.7 ABB 197

TABLE 150\[ABB: COMPANY OVERVIEW\[197]
FIGURE 65\[ABB: COMPANY SNAPSHOT\[198]

TABLE 151 ABB: PRODUCTS/SOLUTIONS/SERVICES OFFERED 198

12.1.8 THERMO FISHER SCIENTIFIC INC. ☐200

TABLE 152 THERMO FISHER SCIENTIFIC INC.: COMPANY OVERVIEW 200 FIGURE 66 THERMO FISHER SCIENTIFIC INC.: COMPANY SNAPSHOT 201

TABLE 153 THERMO FISHER SCIENTIFIC INC.: PRODUCTS/SOLUTIONS/SERVICES OFFERED 202

12.1.9 SARTORIUS AG 203

TABLE 154\(SARTORIUS AG: COMPANY OVERVIEW\(\) 203 FIGURE 67\(SARTORIUS AG: COMPANY SNAPSHOT\(\) 204

TABLE 155 SARTORIUS AG: PRODUCTS/SOLUTIONS/SERVICES OFFERED 205

TABLE 156 SARTORIUS AG: DEALS 206

12.1.10 HITACHI HIGH-TECH CORPORATION 207

TABLE 157 HITACHI HIGH-TECH CORPORATION: COMPANY OVERVIEW 207

TABLE 158 HITACHI HIGH-TECH CORPORATION: PRODUCTS/SOLUTIONS/SERVICES OFFERED 207

12.2 OTHER PLAYERS 210

12.2.1⊓OXFORD INSTRUMENTS□210

TABLE 159 OXFORD INSTRUMENTS: COMPANY OVERVIEW 210

12.2.2 | JASCO | 211

TABLE 160□JASCO: COMPANY OVERVIEW□211
12.2.3□TELEDYNE PRINCETON INSTRUMENTS□212

TABLE 161 TELEDYNE PRINCETON INSTRUMENTS: COMPANY OVERVIEW 212

12.2.4 FOSS 213

TABLE 162 FOSS: COMPANY OVERVIEW 213

12.2.5 LUMEX INSTRUMENTS 214

TABLE 163 LUMEX INSTRUMENTS: COMPANY OVERVIEW 214

12.2.6 SPECTRA ANALYSIS INSTRUMENTS, INC. 214

TABLE 164 SPECTRA ANALYSIS INSTRUMENTS, INC.: COMPANY OVERVIEW 214

12.2.7 GALAXY SCIENTIFIC 215

TABLE 165 GALAXY SCIENTIFIC: COMPANY OVERVIEW 215

12.2.8 MICROPTIK 216

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TABLE 166 MICROPTIK: COMPANY OVERVIEW 216

12.2.9 ISBEN PHOTONICS 217

TABLE 167 ISBEN PHOTONICS: COMPANY OVERVIEW 217

12.2.10 BAYSPEC 217

TABLE 168 BAYSPEC: COMPANY OVERVIEW 217

12.2.11 METROHM AG 218

TABLE 169 METROHM AG: COMPANY OVERVIEW 218

12.2.12 BRISTOL INSTRUMENTS 218

TABLE 170 BRISTOL INSTRUMENTS: COMPANY OVERVIEW 218 12.2.13 COLE-PARMER INSTRUMENT COMPANY, LLC 219

TABLE 171 COLE-PARMER INSTRUMENT COMPANY, LLC: COMPANY OVERVIEW 219

12.2.14 | SCIEX | 219

TABLE 172 SCIEX: COMPANY OVERVIEW 219

12.2.15 BRAINBOX LTD. 220

TABLE 173 BRAINBOX LTD.: COMPANY OVERVIEW 220

*Details on Business Overview, Products/Solutions/Services Offered, Recent Developments, and MnM View (Key strengths/Right to Win, Strategic Choices Made, and Weaknesses and Competitive Threats) might not be captured in case of unlisted companies.

13 APPENDIX 221

13.1 INSIGHTS FROM INDUSTRY EXPERTS 221

13.2 DISCUSSION GUIDE 221

13.3 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL 224

13.4 CUSTOMIZATION OPTIONS 226

13.5 RELATED REPORTS 226

13.6 AUTHOR DETAILS 227



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