

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

<https://marketpublishers.com/r/IDE3FCBFC4BEN.html>

Date: April 2024

Pages: 220

Price: US\$ 4,950.00 (Single User License)

ID: IDE3FCBFC4BEN

Abstracts

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 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 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.

Contents

1 INTRODUCTION

1.1 STUDY OBJECTIVES

1.2 MARKET DEFINITION

1.3 STUDY SCOPE

1.3.1 MARKETS COVERED

FIGURE 1 IR SPECTROSCOPY MARKET SEGMENTATION

1.3.2 REGIONAL SCOPE

1.3.3 INCLUSIONS AND EXCLUSIONS

TABLE 1 INCLUSIONS AND EXCLUSIONS

1.4 YEARS CONSIDERED

1.5 CURRENCY CONSIDERED

1.6 UNIT CONSIDERED

1.7 LIMITATIONS

1.8 STAKEHOLDERS

1.9 SUMMARY OF CHANGES

1.9.1 IMPACT OF RECESSION

2 RESEARCH METHODOLOGY

2.1 INTRODUCTION

FIGURE 2 RESEARCH DESIGN

2.2 RESEARCH DATA

FIGURE 3 RESEARCH APPROACH

2.2.1 SECONDARY DATA

2.2.1.1 Major secondary sources

2.2.1.2 Key data from secondary sources

2.2.2 PRIMARY DATA

2.2.2.1 Key participants in primary interviews

2.2.2.2 Breakdown of primary interviews

2.2.2.3 Key data from primary sources

2.2.2.4 Key industry insights

2.3 FACTOR ANALYSIS

2.3.1 SUPPLY-SIDE ANALYSIS

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

FIGURE 5 REVENUE ANALYSIS OF SHIMADZU CORPORATION

2.3.2 DEMAND-SIDE ANALYSIS

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

2.4 MARKET SIZE ESTIMATION METHODOLOGY

FIGURE 7 SUPPLY-SIDE ANALYSIS

2.4.1 BOTTOM-UP APPROACH

2.4.1.1 Approach to arrive at market size using bottom-up analysis (demand side)

FIGURE 8 BOTTOM-UP APPROACH

2.4.2 TOP-DOWN APPROACH

2.4.2.1 Approach to arrive at market size using top-down analysis (supply side)

FIGURE 9 TOP-DOWN APPROACH

2.5 MARKET BREAKDOWN AND DATA TRIANGULATION

FIGURE 10 DATA TRIANGULATION

2.6 RESEARCH ASSUMPTIONS

TABLE 2 RESEARCH ASSUMPTIONS

TABLE 3 GROWTH FORECAST ASSUMPTIONS

2.7 RESEARCH LIMITATIONS

2.8 RISK ASSESSMENT

TABLE 4 RISK ASSESSMENT

2.9 PARAMETERS TO ANALYZE RECESSION IMPACT

TABLE 5 PARAMETERS TO ANALYZE RECESSION IMPACT

3 EXECUTIVE SUMMARY

FIGURE 11 IR SPECTROSCOPY MARKET, 2020–2029 (USD MILLION)

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

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

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

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

4 PREMIUM INSIGHTS

4.1 ATTRACTIVE GROWTH OPPORTUNITIES FOR PLAYERS IN IR SPECTROSCOPY MARKET

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

4.2 IR SPECTROSCOPY MARKET, BY TYPE

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

4.3 IR SPECTROSCOPY MARKET FOR HEALTHCARE & PHARMACEUTICALS, BY REGION

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

4.4 IR SPECTROSCOPY MARKET, BY PRODUCT TYPE

FIGURE 19 BENCHTOP SPECTROSCOPES TO BE DOMINANT SEGMENT DURING FORECAST PERIOD

4.5 IR SPECTROSCOPY MARKET, BY END USER

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

4.6 IR SPECTROSCOPY MARKET, BY REGION

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

4.7 IR SPECTROSCOPY MARKET, BY COUNTRY

FIGURE 22 CHINA TO RECORD HIGHEST CAGR DURING FORECAST PERIOD

5 MARKET OVERVIEW

5.1 INTRODUCTION

5.2 MARKET DYNAMICS

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

5.2.1 DRIVERS

FIGURE 24 IMPACT OF DRIVERS

5.2.1.1 Growing number of healthcare institutions and clinical research centers

5.2.1.2 Increasing R&D investments in healthcare & pharmaceutical industry

5.2.1.3 Continuous technological advancements in IR spectroscopy

5.2.2 RESTRAINTS

FIGURE 25 IMPACT OF RESTRAINTS

5.2.2.1 Technical constraints

5.2.2.2 Limited lifespan of IR spectroscopy devices

5.2.3 OPPORTUNITIES

FIGURE 26 IMPACT OF OPPORTUNITIES

5.2.3.1 Seed quality detection using NIR spectroscopy

5.2.3.2 Focus on drug development and biological research

5.2.4 CHALLENGES

FIGURE 27 IMPACT OF CHALLENGES**5.2.4.1 High cost of IR spectroscopy products****5.3 TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS****FIGURE 28 TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS****5.4 PRICING ANALYSIS****5.4.1 AVERAGE SELLING PRICE TREND OF KEY PLAYERS, BY PRODUCT TYPE****FIGURE 29 AVERAGE SELLING PRICE TREND OF KEY PLAYERS, BY TOP PRODUCT TYPE****TABLE 6 AVERAGE SELLING PRICE TREND, BY TOP PRODUCT TYPE, 2015–2023 (USD)****5.4.2 AVERAGE SELLING PRICE TREND, BY REGION****TABLE 7 AVERAGE SELLING PRICE TREND, BY REGION, 2019–2023 (USD)****5.5 VALUE CHAIN ANALYSIS****FIGURE 30 VALUE CHAIN ANALYSIS****5.6 ECOSYSTEM ANALYSIS****FIGURE 31 ECOSYSTEM MAPPING****TABLE 8 ROLE OF COMPANIES IN ECOSYSTEM****5.7 INVESTMENT AND FUNDING SCENARIO****FIGURE 32 INVESTMENT AND FUNDING SCENARIO****5.8 TECHNOLOGY ANALYSIS****5.8.1 KEY TECHNOLOGIES****5.8.1.1 Micro-FTIR spectroscopy****5.8.2 COMPLEMENTARY TECHNOLOGIES****5.8.2.1 Raman spectroscopy****5.8.2.2 Mass spectrometry****5.8.3 ADJACENT TECHNOLOGIES****5.8.3.1 Miniaturization and portability****5.8.3.2 Data analysis software****5.9 PATENT ANALYSIS****TABLE 9 INNOVATIONS AND PATENT REGISTRATIONS, 2021–2023****FIGURE 33 PATENT ANALYSIS, 2013–2023****FIGURE 34 REGIONAL ANALYSIS OF PATENTS, 2023****5.10 TRADE DATA ANALYSIS****5.10.1 IMPORT DATA****FIGURE 35 IMPORT DATA FOR HS CODE 902730-COMPLIANT PRODUCTS, BY COUNTRY, 2018–2022 (USD MILLION)****TABLE 10 IMPORT SCENARIO FOR HS CODE 902730-COMPLIANT PRODUCTS, BY COUNTRY, 2018–2022 (USD MILLION)****5.10.2 EXPORT DATA**

FIGURE 36 EXPORT DATA FOR HS CODE 902730-COMPLIANT PRODUCTS, BY COUNTRY, 2018–2022 (USD MILLION)

TABLE 11 EXPORT SCENARIO FOR HS CODE 902730-COMPLIANT PRODUCTS, BY COUNTRY, 2018–2022 (USD MILLION)

5.11 KEY CONFERENCES AND EVENTS

TABLE 12 KEY CONFERENCES AND EVENTS, 2024–2025

5.12 CASE STUDY ANALYSIS

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

5.12.2 USE OF FTIR SPECTROSCOPY FOR ENVIRONMENTAL PLASTICS RESEARCH

5.12.3 IMPROVED STONE DETECTION WITH MULTIVARIATE ANALYSIS SOFTWARE

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

5.13 TARIFF AND REGULATORY LANDSCAPE

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

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

5.13.2 REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

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

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

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

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

5.13.3 REGULATORY STANDARDS

5.14 PORTER'S FIVE FORCES ANALYSIS

TABLE 18 IMPACT OF PORTER'S FIVE FORCES

FIGURE 37 PORTER'S FIVE FORCES ANALYSIS

5.14.1 THREAT OF NEW ENTRANTS

5.14.2 THREAT OF SUBSTITUTES

5.14.3 BARGAINING POWER OF SUPPLIERS

5.14.4 BARGAINING POWER OF BUYERS

5.14.5 INTENSITY OF COMPETITIVE RIVALRY

5.15 KEY STAKEHOLDERS AND BUYING CRITERIA

5.15.1 KEY STAKEHOLDERS IN BUYING PROCESS

FIGURE 38 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS, BY TECHNOLOGY

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

5.15.2 BUYING CRITERIA

FIGURE 39 KEY BUYING CRITERIA, BY PRODUCT TYPE

TABLE 20 KEY BUYING CRITERIA, BY PRODUCT TYPE

6 IR SPECTROSCOPY MARKET, BY TECHNOLOGY

6.1 INTRODUCTION

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

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

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

6.2 FOURIER TRANSFORM INFRARED SPECTROSCOPY

6.2.1 INCREASING ADOPTION IN FORENSICS AND PHARMACEUTICAL RESEARCH TO DRIVE MARKET

TABLE 23 FOURIER TRANSFORM INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2020–2023 (USD MILLION)

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

6.3 DISPERSIVE INFRARED SPECTROSCOPY

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

TABLE 25 DISPERSIVE INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2020–2023 (USD MILLION)

TABLE 26 DISPERSIVE INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2024–2029 (USD MILLION)

7 IR SPECTROSCOPY MARKET, BY TYPE

7.1 INTRODUCTION

FIGURE 41 IR SPECTROSCOPY MARKET, BY TYPE, 2024–2029 (USD MILLION)

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

TABLE 28 IR SPECTROSCOPY MARKET, BY TYPE, 2024–2029 (USD MILLION)

7.2 NEAR-INFRARED SPECTROSCOPY

7.2.1 RISING FOCUS ON DELIVERING HIGH-QUALITY PRODUCTS TO DAIRY AND AGRICULTURE INDUSTRIES TO DRIVE MARKET

FIGURE 42 NEAR-INFRARED SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2024–2029 (USD MILLION)

TABLE 29 NEAR-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2020–2023 (USD MILLION)

TABLE 30 NEAR-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2024–2029 (USD MILLION)

TABLE 31 NEAR-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 32 NEAR-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY END USER, 2024–2029 (USD MILLION)

7.3 MID-INFRARED SPECTROSCOPY (MIR)

7.3.1 INCREASING DEMAND FOR REAL-TIME MONITORING OF FOOD QUALITY TO DRIVE MARKET

FIGURE 43 MID-INFRARED SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2024–2029 (USD MILLION)

TABLE 33 MID-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2020–2023 (USD MILLION)

TABLE 34 MID-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2024–2029 (USD MILLION)

TABLE 35 MID-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 36 MID-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY END USER, 2024–2029 (USD MILLION)

7.4 FAR-INFRARED SPECTROSCOPY

7.4.1 SURGE IN DEMAND FOR SAFE HEALTHCARE APPLICATIONS TO DRIVE MARKET

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

TABLE 37 FAR-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2020–2023 (USD MILLION)

TABLE 38 FAR-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY PRODUCT TYPE, 2024–2029 (USD MILLION)

TABLE 39 FAR-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 40 FAR-INFRARED SPECTROSCOPY: IR SPECTROSCOPY MARKET, BY END USER, 2024–2029 (USD MILLION)

8 INFRARED SPECTROSCOPY MARKET, BY PRODUCT TYPE

8.1 INTRODUCTION

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

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

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

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

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

8.2 BENCHTOP SPECTROSCOPES

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

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

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

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

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

8.3 MICRO SPECTROSCOPES

8.3.1 FORENSIC SCIENCE AND TISSUE ENGINEERING APPLICATIONS TO DRIVE MARKET

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

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

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

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

8.4 PORTABLE SPECTROSCOPES

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

TABLE 53 PORTABLE SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY

TECHNOLOGY, 2020–2023 (USD MILLION)

TABLE 54 PORTABLE SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2024–2029 (USD MILLION)

TABLE 55 PORTABLE SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TYPE, 2020–2023 (USD MILLION)

TABLE 56 PORTABLE SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TYPE, 2024–2029 (USD MILLION)

8.5 HYPHENATED SPECTROSCOPES

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

TABLE 57 HYPHENATED SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2020–2023 (USD MILLION)

TABLE 58 HYPHENATED SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2024–2029 (USD MILLION)

TABLE 59 HYPHENATED SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TYPE, 2020–2023 (USD MILLION)

TABLE 60 HYPHENATED SPECTROSCOPES: IR SPECTROSCOPY MARKET, BY TYPE, 2024–2029 (USD MILLION)

9 IR SPECTROSCOPY MARKET, BY END USER

9.1 INTRODUCTION

FIGURE 46 IR SPECTROSCOPY MARKET, BY END USER, 2024–2029 (USD MILLION)

TABLE 61 IR SPECTROSCOPY MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 62 IR SPECTROSCOPY MARKET, BY END USER, 2024–2029 (USD MILLION)

9.2 HEALTHCARE & PHARMACEUTICALS

9.2.1 RISING USE IN DIAGNOSTIC AND THERAPEUTIC APPLICATIONS TO DRIVE MARKET

TABLE 63 HEALTHCARE & PHARMACEUTICALS: IR SPECTROSCOPY MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 64 HEALTHCARE & PHARMACEUTICALS: IR SPECTROSCOPY MARKET, BY REGION, 2024–2029 (USD MILLION)

TABLE 65 HEALTHCARE & PHARMACEUTICALS: IR SPECTROSCOPY MARKET, BY TYPE, 2020–2023 (USD MILLION)

TABLE 66 HEALTHCARE & PHARMACEUTICALS: IR SPECTROSCOPY MARKET, BY TYPE, 2024–2029 (USD MILLION)

TABLE 67 HEALTHCARE & PHARMACEUTICALS: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2020–2023 (USD MILLION)

TABLE 68 HEALTHCARE & PHARMACEUTICALS: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2024–2029 (USD MILLION)

9.3 CHEMICALS

9.3.1 INCREASING NEED TO IDENTIFY MOLECULAR CHARACTERISTICS FOR VARIOUS APPLICATIONS TO DRIVE MARKET

TABLE 69 CHEMICALS: IR SPECTROSCOPY MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 70 CHEMICALS: IR SPECTROSCOPY MARKET, BY REGION, 2024–2029 (USD MILLION)

TABLE 71 CHEMICALS: IR SPECTROSCOPY MARKET, BY TYPE, 2020–2023 (USD MILLION)

TABLE 72 CHEMICALS: IR SPECTROSCOPY MARKET, BY TYPE, 2024–2029 (USD MILLION)

TABLE 73 CHEMICALS: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2020–2023 (USD MILLION)

TABLE 74 CHEMICALS: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2024–2029 (USD MILLION)

9.4 FOOD & BEVERAGES

9.4.1 GROWING NEED TO ASSESS QUALITY AND SAFETY OF FOOD & BEVERAGES TO DRIVE MARKET

TABLE 75 FOOD & BEVERAGES: IR SPECTROSCOPY MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 76 FOOD & BEVERAGES: IR SPECTROSCOPY MARKET, BY REGION, 2024–2029 (USD MILLION)

TABLE 77 FOOD & BEVERAGES: IR SPECTROSCOPY MARKET, BY TYPE, 2020–2023 (USD MILLION)

TABLE 78 FOOD & BEVERAGES: IR SPECTROSCOPY MARKET, BY TYPE, 2024–2029 (USD MILLION)

TABLE 79 FOOD & BEVERAGES: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2020–2023 (USD MILLION)

TABLE 80 FOOD & BEVERAGES: IR SPECTROSCOPY MARKET, BY TECHNOLOGY, 2024–2029 (USD MILLION)

9.5 ENVIRONMENTAL

9.5.1 SURGE IN NEED TO DETECT AND QUANTIFY AIR, WATER, AND SOIL POLLUTANTS TO DRIVE MARKET

TABLE 81 ENVIRONMENTAL: IR SPECTROSCOPY MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 82 ENVIRONMENTAL: IR SPECTROSCOPY MARKET, BY REGION,
2024–2029 (USD MILLION)

TABLE 83 ENVIRONMENTAL: IR SPECTROSCOPY MARKET, BY TYPE, 2020–2023
(USD MILLION)

TABLE 84 ENVIRONMENTAL: IR SPECTROSCOPY MARKET, BY TYPE, 2024–2029
(USD MILLION)

TABLE 85 ENVIRONMENTAL: IR SPECTROSCOPY MARKET, BY TECHNOLOGY,
2020–2023 (USD MILLION)

TABLE 86 ENVIRONMENTAL: IR SPECTROSCOPY MARKET, BY TECHNOLOGY,
2024–2029 (USD MILLION)

9.6 BIOMEDICAL RESEARCH & BIOMATERIALS

9.6.1 GROWING TECHNOLOGICAL ADVANCEMENTS IN PROTEOMICS AND
GENOMICS TO DRIVE MARKET

TABLE 87 BIOMEDICAL RESEARCH & BIOMATERIALS: IR SPECTROSCOPY
MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 88 BIOMEDICAL RESEARCH & BIOMATERIALS: IR SPECTROSCOPY
MARKET, BY REGION, 2024–2029 (USD MILLION)

TABLE 89 BIOMEDICAL RESEARCH & BIOMATERIALS: IR SPECTROSCOPY
MARKET, BY TYPE, 2020–2023 (USD MILLION)

TABLE 90 BIOMEDICAL RESEARCH & BIOMATERIALS: IR SPECTROSCOPY
MARKET, BY TYPE, 2024–2029 (USD MILLION)

TABLE 91 BIOMEDICAL RESEARCH & BIOMATERIALS: IR SPECTROSCOPY
MARKET, BY TECHNOLOGY, 2020–2023 (USD MILLION)

TABLE 92 BIOMEDICAL RESEARCH & BIOMATERIALS: IR SPECTROSCOPY
MARKET, BY TECHNOLOGY, 2024–2029 (USD MILLION)

9.7 CONSUMER ELECTRONICS

9.7.1 INCREASING INTEGRATION IN MOBILE DEVICES TO DRIVE MARKET

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

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

TABLE 95 CONSUMER ELECTRONICS: IR SPECTROSCOPY MARKET, BY TYPE,
2020–2023 (USD MILLION)

TABLE 96 CONSUMER ELECTRONICS: IR SPECTROSCOPY MARKET, BY TYPE,
2024–2029 (USD MILLION)

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

TABLE 98 CONSUMER ELECTRONICS: IR SPECTROSCOPY MARKET, BY
TECHNOLOGY, 2024–2029 (USD MILLION)

10 IR SPECTROSCOPY MARKET, BY REGION

10.1 INTRODUCTION

FIGURE 47 IR SPECTROSCOPY MARKET, BY REGION, 2024–2029 (USD MILLION)

TABLE 99 IR SPECTROSCOPY MARKET, BY REGION, 2020–2023 (USD MILLION)

TABLE 100 IR SPECTROSCOPY MARKET, BY REGION, 2024–2029 (USD MILLION)

10.2 NORTH AMERICA

FIGURE 48 NORTH AMERICA: IR SPECTROSCOPY MARKET SNAPSHOT

10.2.1 RECESSION IMPACT ANALYSIS

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

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

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

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

10.2.2 US

10.2.2.1 Surge in healthcare spending to drive market

10.2.3 CANADA

10.2.3.1 Growing focus on reviving aircraft manufacturing to drive market

10.2.4 MEXICO

10.2.4.1 Increasing need to monitor air quality to drive market

10.3 EUROPE

FIGURE 49 EUROPE: IR SPECTROSCOPY MARKET SNAPSHOT

10.3.1 RECESSION IMPACT ANALYSIS

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

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

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

TABLE 108 EUROPE: IR SPECTROSCOPY MARKET, BY END USER, 2024–2029 (USD MILLION)

10.3.2 UK

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

10.3.3 GERMANY

10.3.3.1 Increasing shift toward climate-neutral mobility to drive market

10.3.4 FRANCE

10.3.4.1 Biomedical and food & beverages applications to drive market

10.3.5 ITALY

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

10.3.6 REST OF EUROPE

10.4 ASIA PACIFIC

FIGURE 50 ASIA PACIFIC: IR SPECTROSCOPY MARKET SNAPSHOT

10.4.1 RECESSION IMPACT ANALYSIS

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

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

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

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

10.4.2 CHINA

10.4.2.1 Growing use in security and surveillance applications to drive market

10.4.3 JAPAN

10.4.3.1 Growing demand for monitoring manufacturing processes to drive market

10.4.4 INDIA

10.4.4.1 Increased funding for scientific study to drive market

10.4.5 SOUTH KOREA

10.4.5.1 Booming semiconductors industry to drive market

10.4.6 REST OF ASIA PACIFIC

10.5 REST OF THE WORLD

10.5.1 RECESSION IMPACT ANALYSIS

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

TABLE 114 REST OF THE WORLD: IR SPECTROSCOPY MARKET, BY REGION, 2024–2029 (USD MILLION)

TABLE 115 REST OF THE WORLD: IR SPECTROSCOPY MARKET, BY END USER, 2020–2023 (USD MILLION)

TABLE 116 REST OF THE WORLD: IR SPECTROSCOPY MARKET, BY END USER, 2024–2029 (USD MILLION)

10.5.2 SOUTH AMERICA

10.5.2.1 Increasing adoption of IR spectroscopy technology by sportspersons and

medical professionals to drive market

10.5.3 MIDDLE EAST & AFRICA

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

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

10.5.3.1 GCC

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

10.5.3.2 Rest of Middle East & Africa

11 COMPETITIVE LANDSCAPE

11.1 OVERVIEW

11.2 STRATEGIES ADOPTED BY KEY PLAYERS

TABLE 119 STRATEGIES ADOPTED BY KEY PLAYERS

11.2.1 PRODUCT PORTFOLIO

11.2.2 REGIONAL FOCUS

11.2.3 MANUFACTURING FOOTPRINT

11.2.4 ORGANIC/INORGANIC GROWTH STRATEGIES

11.3 MARKET SHARE ANALYSIS

FIGURE 51 MARKET SHARE ANALYSIS, 2023

TABLE 120 DEGREE OF COMPETITION, 2023

11.4 REVENUE ANALYSIS

FIGURE 52 REVENUE ANALYSIS, 2019–2023

11.5 COMPANY VALUATION AND FINANCIAL METRICS

FIGURE 53 COMPANY VALUATION

FIGURE 54 FINANCIAL METRICS

11.6 BRAND COMPARISON

FIGURE 55 BRAND COMPARISON

11.7 COMPANY EVALUATION MATRIX: KEY PLAYERS

11.7.1 STARS

11.7.2 EMERGING LEADERS

11.7.3 PERVASIVE PLAYERS

11.7.4 PARTICIPANTS

FIGURE 56 IR SPECTROSCOPY MARKET: COMPANY EVALUATION MATRIX, 2023

11.7.5 COMPANY FOOTPRINT

FIGURE 57 IR SPECTROSCOPY MARKET: COMPANY FOOTPRINT

TABLE 121 IR SPECTROSCOPY MARKET: PRODUCT TYPE FOOTPRINT

TABLE 122 IR SPECTROSCOPY MARKET: TYPE FOOTPRINT

TABLE 123 IR SPECTROSCOPY MARKET: TECHNOLOGY FOOTPRINT

TABLE 124 IR SPECTROSCOPY MARKET: END USER FOOTPRINT

TABLE 125 IR SPECTROSCOPY MARKET: REGION FOOTPRINT

11.8 COMPANY EVALUATION MATRIX: STARTUPS/SMES

11.8.1 PROGRESSIVE COMPANIES

11.8.2 RESPONSIVE COMPANIES

11.8.3 DYNAMIC COMPANIES

11.8.4 STARTING BLOCKS

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

11.8.5 COMPETITIVE BENCHMARKING

TABLE 126 IR SPECTROSCOPY MARKET: KEY STARTUPS/SMES

TABLE 127 IR SPECTROSCOPY MARKET: COMPETITIVE BENCHMARKING

11.9 COMPETITIVE SCENARIOS AND TRENDS

11.9.1 PRODUCT LAUNCHES

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

11.9.2 DEALS

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

12 COMPANY PROFILES

(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

12.1.1 SHIMADZU CORPORATION

TABLE 130 SHIMADZU CORPORATION: COMPANY OVERVIEW

FIGURE 59 SHIMADZU CORPORATION: COMPANY SNAPSHOT

TABLE 131 SHIMADZU CORPORATION: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 132 SHIMADZU CORPORATION: PRODUCT LAUNCHES

TABLE 133 SHIMADZU CORPORATION: DEALS

12.1.2 AGILENT TECHNOLOGIES, INC.

TABLE 134 AGILENT TECHNOLOGIES, INC.: COMPANY OVERVIEW

FIGURE 60 AGILENT TECHNOLOGIES, INC.: COMPANY SNAPSHOT

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

OFFERED**TABLE 136 AGILENT TECHNOLOGIES, INC.: PRODUCT LAUNCHES****TABLE 137 AGILENT TECHNOLOGIES, INC.: DEALS****12.1.3 BRUKER****TABLE 138 BRUKER: COMPANY OVERVIEW****FIGURE 61 BRUKER: COMPANY SNAPSHOT****TABLE 139 BRUKER: PRODUCTS/SOLUTIONS/SERVICES OFFERED****TABLE 140 BRUKER: PRODUCT LAUNCHES****12.1.4 HORIBA, LTD.****TABLE 141 HORIBA, LTD.: COMPANY OVERVIEW****FIGURE 62 HORIBA, LTD.: COMPANY SNAPSHOT****TABLE 142 HORIBA, LTD.: PRODUCTS/SOLUTIONS/SERVICES OFFERED****12.1.5 PERKINELMER INC.****TABLE 143 PERKINELMER INC.: COMPANY OVERVIEW****FIGURE 63 PERKINELMER INC.: COMPANY SNAPSHOT****TABLE 144 PERKINELMER INC.: PRODUCTS/SOLUTIONS/SERVICES OFFERED****TABLE 145 PERKINELMER INC.: PRODUCT LAUNCHES****TABLE 146 PERKINELMER INC.: DEALS****12.1.6 ZEISS****TABLE 147 ZEISS: COMPANY OVERVIEW****FIGURE 64 ZEISS: COMPANY SNAPSHOT****TABLE 148 ZEISS: PRODUCTS/SOLUTIONS/SERVICES OFFERED****TABLE 149 ZEISS: PRODUCT LAUNCHES****12.1.7 ABB****TABLE 150 ABB: COMPANY OVERVIEW****FIGURE 65 ABB: COMPANY SNAPSHOT****TABLE 151 ABB: PRODUCTS/SOLUTIONS/SERVICES OFFERED****12.1.8 THERMO FISHER SCIENTIFIC INC.****TABLE 152 THERMO FISHER SCIENTIFIC INC.: COMPANY OVERVIEW****FIGURE 66 THERMO FISHER SCIENTIFIC INC.: COMPANY SNAPSHOT****TABLE 153 THERMO FISHER SCIENTIFIC INC.:****PRODUCTS/SOLUTIONS/SERVICES OFFERED****12.1.9 SARTORIUS AG****TABLE 154 SARTORIUS AG: COMPANY OVERVIEW****FIGURE 67 SARTORIUS AG: COMPANY SNAPSHOT****TABLE 155 SARTORIUS AG: PRODUCTS/SOLUTIONS/SERVICES OFFERED****TABLE 156 SARTORIUS AG: DEALS****12.1.10 HITACHI HIGH-TECH CORPORATION****TABLE 157 HITACHI HIGH-TECH CORPORATION: COMPANY OVERVIEW**

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

12.2 OTHER PLAYERS

12.2.1 OXFORD INSTRUMENTS

TABLE 159 OXFORD INSTRUMENTS: COMPANY OVERVIEW

12.2.2 JASCO

TABLE 160 JASCO: COMPANY OVERVIEW

12.2.3 TELEDYNE PRINCETON INSTRUMENTS

TABLE 161 TELEDYNE PRINCETON INSTRUMENTS: COMPANY OVERVIEW

12.2.4 FOSS

TABLE 162 FOSS: COMPANY OVERVIEW

12.2.5 LUMEX INSTRUMENTS

TABLE 163 LUMEX INSTRUMENTS: COMPANY OVERVIEW

12.2.6 SPECTRA ANALYSIS INSTRUMENTS, INC.

TABLE 164 SPECTRA ANALYSIS INSTRUMENTS, INC.: COMPANY OVERVIEW

12.2.7 GALAXY SCIENTIFIC

TABLE 165 GALAXY SCIENTIFIC: COMPANY OVERVIEW

12.2.8 MICROPTIK

TABLE 166 MICROPTIK: COMPANY OVERVIEW

12.2.9 ISBEN PHOTONICS

TABLE 167 ISBEN PHOTONICS: COMPANY OVERVIEW

12.2.10 BAYSPEC

TABLE 168 BAYSPEC: COMPANY OVERVIEW

12.2.11 METROHM AG

TABLE 169 METROHM AG: COMPANY OVERVIEW

12.2.12 BRISTOL INSTRUMENTS

TABLE 170 BRISTOL INSTRUMENTS: COMPANY OVERVIEW

12.2.13 COLE-PARMER INSTRUMENT COMPANY, LLC

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

12.2.14 SCIEX

TABLE 172 SCIEX: COMPANY OVERVIEW

12.2.15 BRAINBOX LTD.

TABLE 173 BRAINBOX LTD.: COMPANY OVERVIEW

*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

13.1 INSIGHTS FROM INDUSTRY EXPERTS

13.2 DISCUSSION GUIDE

13.3 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL

13.4 CUSTOMIZATION OPTIONS

13.5 RELATED REPORTS

13.6 AUTHOR DETAILS

I would like to order

Product name: 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

Product link: <https://marketpublishers.com/r/IDE3FCBFC4BEN.html>

Price: US\$ 4,950.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/IDE3FCBFC4BEN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:

Last name:

Email:

Company:

Address:

City:

Zip code:

Country:

Tel:

Fax:

Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below

and fax the completed form to +44 20 7900 3970