

# **Global Process Spectroscopy Market Size Study & Forecast, By Component (Hardware, Software), By Technology (Molecular Spectroscopy, Mass Spectroscopy, Atomic Spectroscopy), By Application (Polymer, Oil & Gas, Pharmaceutical, Food & Agriculture, Chemical, Water & Wastewater, Pulp & Paper, Metal & Mining, Others), and Regional Analysis, 2023-2030**

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## **Abstracts**

Global Process Spectroscopy Market is valued at approximately USD XX billion in 2022 and is anticipated to grow with a healthy growth rate of more than XX% over the forecast period 2023-2030. Process spectroscopy is a technique to investigate the interaction between matter and electromagnetic radiation, stands out as a robust analytical method. Renowned for its array of valuable features, process spectroscopy systems offer multiple benefits, including cost reduction in monitoring operations and time savings. This methodology finds expanding utility across diverse sectors such as water and wastewater treatment, drug testing, and operations within oil and gas processing facilities. The market growth is driven by key factors such as increasing awareness of the importance of quality food and drugs, rising emphasis on minimizing variable expenses of rework and reducing scrap, and growing development in molecular spectroscopy.

For instance, as per the US Health Department, in 2023, Indian Health Service granted a sum of USD 2.5 million to address food insecurity in native communities, as reported by health.gov. As part of this initiative, five tribes and tribal organizations were each awarded USD 500,000 to launch produce prescription programs within their respective

communities. Furthermore, key market players have been focusing on expanding their portfolios. In June 2023, Thermo Fisher Scientific Inc. unveiled the Thermo Scientific Orbitrap Astral mass spectrometer, representing a significant leap forward in mass spectrometry innovation after 15 years of development. The groundbreaking analyzer, Astral, integrates rapid sample processing, outstanding sensitivity, and comprehensive proteome coverage. This advancement empowers researchers globally to identify previously elusive proteins and make groundbreaking discoveries with remarkable efficiency. However, high capital investment stifles market growth throughout the forecast period of 2023-2030.

The key regions considered for the Global Process Spectroscopy Market study include Asia Pacific, North America, Europe, Latin America, and Middle East & Africa. North America is leading the market growth and is expected to be the fastest-growing region in the Global Process Spectroscopy Market throughout the forecast period. This is attributed to the region's robust R&D infrastructure across key industrial sectors including food & beverage, pharmaceuticals, and chemicals, serving as a primary driver for market growth.

Major market players included in this report are:

Thermo Fisher Scientific Inc.

ABB

Agilent Technologies, Inc.

Bruker

BUCHI

Danaher

FOSS

HORIBA

Endress+Hauser Group Services AG

Sartorius AG

## Recent Developments in the Market:

In October 2023, HORIBA unveiled the A-TEEM Compliance Package, a sophisticated software solution designed to ensure regulatory compliance in the pharmaceutical industry. This spectroscopic software package excels in identifying out-of-spec products and detecting low-level components within complex mixtures.

In July 2022, Yokogawa Electric Corporation introduced a new iteration of its probe-type tunable diode laser spectrometer, the TDLS8200. This explosion-proof addition to the OpreX Analyzer family boasts high measurement stability, reliability, and minimal installation costs. It is designed to deliver better performance in the chemical, oil & gas, and iron & steel sectors.

In April 2022, Thermo Fisher Scientific Inc. launched a Raman spectroscopic analyzer renowned for its continuous and non-destructive analysis capabilities. This analyzer is designed to simplify the complexities of Raman spectroscopy measurements through its rapid system setup and deployment. With this feature, users can expect a streamlined and efficient process that saves time and eliminates unnecessary complications.

## Global Process Spectroscopy Market Report Scope:

Historical Data – 2020 - 2021

Base Year for Estimation – 2022

Forecast period - 2023-2030

Report Coverage - Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Segments Covered – Component, Technology, Application, Region

Regional Scope - North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope - Free report customization (equivalent to up to 8 analysts' working hours) with purchase. Addition or alteration to country, regional & segment scope\*

The objective of the study is to define the market sizes of different segments & countries in recent years and to forecast the values for the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within countries involved in the study.

The report also caters to detailed information about the crucial aspects such as driving factors & challenges that will define the future growth of the market. Additionally, it also incorporates potential opportunities in micro markets for stakeholders to invest along with a detailed analysis of the competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

By Component:

Hardware

Software

By Technology:

Molecular Spectroscopy

Mass Spectroscopy

Atomic Spectroscopy

By Application:

Polymer

Oil & Gas

Pharmaceutical

Food & Agriculture

Chemical

Water & Wastewater

Pulp & Paper

Metal & Mining

Others

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Middle East & Africa

Saudi Arabia

South Africa

Rest of Middle East & Africa

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