

# Process Spectroscopy Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

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## Abstracts

The global process spectroscopy market size reached US\$ 23.1 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 34.9 Billion by 2028, exhibiting a growth rate (CAGR) of 7.1% during 2022-2028.

Process spectroscopy is a specialized technique used for analyzing the interaction between light, electromagnetic radiation and matter. Process spectroscopy uses various devices, such as benchtop, micro, portable and hyphenated spectrometers, amplifiers, signal processors, display units and microscopes. They are commonly used for Fourier Transform Infrared Spectroscopy (FT-IR), Raman spectroscopy, nuclear magnetic resonance (NMR) and Near-Infrared (NIR). Process spectroscopy involves splitting the radiation into a spectrum of its wavelengths to study electrons, protons and ions, and the generated collision energy. As a result, it finds extensive applications across various industries, including healthcare, pharmaceuticals, biological research and electronics.

**Process Spectroscopy Market Trends:**

Significant growth in the pharmaceutical industry is one of the key factors creating a positive outlook for the market. Drug manufacturers use process spectrometers to evaluate the material porosity of a substance for quality control and to examine the state of the formulations. Moreover, the increasing demand for process analyzers across industries is providing a thrust to the market growth. Process spectrometers are widely used in bioreactors, slipstreams, reaction vessels and large volumetric probes for drug manufacturing and water and wastewater treatment. In line with this, the technique is also gaining immense preference among the masses for analyzing, monitoring and controlling various manufacturing processes and identifying defects in product materials. Other factors, including the widespread adoption of spectroscopic techniques in the forensic sector for the identification of organic compounds and substances at crime scenes, along with extensive research and development (R&D) activities, are

anticipated to drive the market toward growth.

**Key Market Segmentation:**

IMARC Group provides an analysis of the key trends in each sub-segment of the global process spectroscopy market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on technology, component and application.

**Breakup by Technology:**

Molecular Spectroscopy

Mass Spectroscopy

Atomic Spectroscopy

**Breakup by Component:**

Hardware

Software

**Breakup by Application:**

Polymer

Oil and Gas

Pharmaceuticals

Food and Agriculture

Chemicals

Water and Wastewater

Others

**Breakup by Region:**

North America

United States

Canada

Asia-Pacific

China

Japan

India

South Korea

Australia

Indonesia

Others

Europe

Germany

France

United Kingdom

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being ABB Ltd, Agilent Technologies Inc., Bruker Corporation, Buchi Labortechnik AG, Danaher Corporation, Foss A/S, Horiba Ltd., Kett Electric Laboratory, Sartorius AG, Shimadzu Corporation, Thermo Fisher Scientific Inc. and Yokogawa Electric Corporation.

Key Questions Answered in This Report:

How has the global process spectroscopy market performed so far and how will it perform in the coming years?

What has been the impact of COVID-19 on the global process spectroscopy market?

What are the key regional markets?

What is the breakup of the market based on the technology?

What is the breakup of the market based on the component?

What is the breakup of the market based on the application?

What are the various stages in the value chain of the industry?

What are the key driving factors and challenges in the industry?

What is the structure of the global process spectroscopy market and who are the key players?

What is the degree of competition in the industry?

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