

Analytical Instrumentation Market Assessment, By Product [Chromatography Instruments, Spectroscopy Instruments, Molecular Analysis Instruments, Electrochemical Analysis Instruments, Particle Counters and Analyzers, Others], By Application [Clinical Diagnostics, Cancer and Genomic Research, Life Sciences, Drug Discovery, Others], By End-user [Diagnostic Centers, Research and Academic Institutes, Pharmaceutical and Biotechnology Industry, Others], By Region, Opportunities and Forecast, 2017-2031F

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Abstracts

Global analytical instrumentation market is projected to witness a CAGR of 5.69% during the forecast period 2024-2031, growing from USD 60.13 billion in 2023 to USD 93.62 billion in 2031. Growth in global analytical instrumentation market is driven by various factors such as rising prevalence of chronic and infectious diseases, technological advancements, integration of AI, rising importance of quality control in various sectors, environmental concerns, increasing healthcare investments, government initiatives, policies, and programs.

Growing pharmaceuticals and biotechnological companies, increase in private and public sector investments in the analytics market, presence of several top players and developmental strategies like mergers, acquisitions, collaborations, and new product launches are accelerating the demand for analytical instrumentation. The global analytical instrumentation market is further undergoing robust growth due to the



increasing prevalence of infectious and chronic diseases globally. The increasing aging population leads to vulnerability to several health conditions, due to which the world is affected by a high number of patients with chronic and infectious diseases such as diabetes, cancer, and cardiovascular diseases. Analytical instruments play a crucial role in the healthcare sector and are highly efficient in disease diagnosis, prevention, and control of several diseases and smooth drug discoveries in the pharmaceutical industry. Other factors, such as improvement in healthcare facilities by adopting the latest advanced analytical instrumentation in the healthcare sector and growing application of analytical instruments in quality control in food-processing laboratories and chemical laboratories, are driving the growth of the global analytical instrumentation market.

Technological advancements such as development of highly efficient, portable, and sophisticated analytical instruments is a major factor responsible for the growth. Governments have started initiatives to encourage the use of analytical instruments in the healthcare sector to bring quality in drug discovery process, advanced devices, and instrumentation. Wide range of application of analytical instruments in various industries, attracts public and private companies to join and invest in innovations for the development of more efficient and effective analytical instrument. Moreover, mergers and acquisitions, and partnerships and collaborations between the healthcare industries for analytical instrumentation is further driving the global analytical instrumentation market.

For instance, in January 2023, Agilent Technologies Inc. announced the acquisition of Avida Biomed, a life sciences company that works in genomics. The strategic acquisition would help Agilent develop precise cancer medicine and bring in-depth knowledge regarding various aspects of genomics.

Increasing Prevalence of Chronic Diseases

There has been a surge in demand for analytical instrumentation due to the rising number of chronic and infectious diseases worldwide. Analytical instruments play a crucial role in diagnosing health morbidities such as cancers, HIV, AIDS, and others. Analytical instruments such as biosensors are crucial in disease identification, prevention, rehabilitation, patient's health surveillance, and human health management.

As per WHO, non-communicable diseases (NCDs) kill 41 million people every year, which accounts for 74% of global deaths. The majority of NCD deaths, 17.9 million



annually, are caused by cardiovascular diseases, which are followed by deaths by cancer (9.3 million), chronic respiratory diseases (4.1 million), and diabetes (2.0 million, including deaths from kidney disease caused by diabetes). The probability of death from a non-communicable disease increases with the consumption of tobacco, physical inactivity, alcohol consumption, and air pollution.

Technological Advancements

Artificial intelligence has revolutionized advancement in almost every sector. Al has huge potential in enhancing the analytical capabilities of the instruments used in different applications in healthcare. Over the past few years, there has been a surge of innovative product launches with AI capabilities, aimed at overcoming the limitations of existing analytical instruments for more in-depth quality analysis. These technological advancements increase the accuracy and speed of analytical instruments and improve the efficiency of the product. Due to it, many key market players are launching AI-based analytical instrumentation, to improve their product portfolio and provide better outcomes. Agilent Technologies Inc. announced the launch of LC/TQ and LC/Q-TOF Mass Spectrometry Solutions at ASMS 2023. Due to its increased efficiency and decreased instrument downtime, the 6495 LC/TQ instrument was designed with production-ready robustness for research purposes. With its completely new instrument architecture and intelligence, the Agilent Revident Quadrupole Time-of-Flight LC/MS (LC/QTOF) System maximizes operation time and productivity.

Growing Demand For Spectroscopy Instruments

Among the product segments, spectroscopy instruments hold the maximum market share in the global analytical instrumentation market. Extensive research and development activities and increased investments by key market players in this segment lead to huge demand for spectroscopy devices and instruments. Moreover, its potential to provide quantified information about the atoms and molecules is the main reason behind its increasing demand, especially in the chemical industry. Due to this, many key market players are including spectroscopy instruments in their product portfolio. For instance, in June 2023, Bruker Corporation announced the launch of the new "timsTOF Ultra mass spectrometer". At the single-cell level of 0.125 ng protein loading, at 1% FDR, the product can detect over 55K peptides that map into 5000 protein groups. Additionally, over 4800 protein groups can be measured at CVs of less than 20%. The product has set a new benchmark due to its high sensitivity and reliability. A supportive regulatory system enables analytical instrument manufacturers to invest and bring innovative launches.



Analytical Instruments Holds a Dominant Share in Life Sciences

In the application segment, life sciences hold a significant market share in the global analytical instrumentation market. Analytical instruments have a wide range of applications in almost every industry, such as food and beverages industry, chemical industry, environment analysis, and oil and refining industry, however, with increasing global aging population and the rising number of chronic and infectious diseases, the application of these instruments is increasing at a rapid scale in the healthcare sector. Moreover, key market players are bringing new product launches by developing innovative analytical instruments specially for their life sciences segment which is further accelerating the growth of this segment.

In May 2023, Thermo Fisher Scientific Inc. announced the launch of one of the most significant advanced mass spectrometry in 15 years, known as "Thermo Scientific Orbitrap Astral mass spectrometer". It will help identify clinical biomarkers, detect diseases early, and drive innovation in research and development activities.

Asia-Pacific is Expected to Grow at the Fastest Rate in the Forecast Period

Asia-Pacific is an emerging market that has huge potential for analytical instruments application in all sectors, due to which key market players are establishing manufacturing and operational facilities in this region to expand their business and overall size of the market. Rapidly increasing population and growing prevalence of chronic and infectious diseases in the region will accelerate the demand for highly efficient analytical instruments in the healthcare sector. Presence of countries such as China, Japan, India, South Korea, and Australia will strengthen the size of Asia-Pacific in the global analytical instrumentation market.

For instance, in August 2023, Agilent Technologies Inc., announced opening of a new full-scale integrated biology center at Monash University in Malaysia. The new facility will be equipped by various analytical instruments such as high-performing liquid chromatography, mass spectrometry, and gas chromatography systems, to provide analytical expertise in applied biology research and development and a wide range of applications in life science industry. Due to the growing interest of leading market players in investing resources in the region, Asia-Pacific is expected to grow faster than others.

Future Market Scenario (2024 – 2031F)



The global analytical instrumentation market is expected to grow in the forecast period, due to multiple factors. Primarily, the increasing prevalence of chronic and infectious diseases worldwide has increased the demand for analytical instruments in the healthcare industry. Growing environmental concerns, increased demand for quality control in the food and beverages industry, chemical laboratories, and oil refining industries, and demand for advanced analytical instruments further accelerate the growth of the market. Increasing investments in healthcare, collaborations between medical device and biotechnology companies, government initiatives, integration of AI with analytical instruments, increased research and development and new product launch by medical device companies are further driving the growth of global analytical instrumentation market.

Key Players Landscape and Outlook

In the global analytical instrumentation market, private companies consistently establish partnerships and distribution agreements. These alliances empower firms to gain from each other's strengths, benefit from access to new markets and technologies, and pool resources for research and development endeavors. Distribution agreements enable companies to broaden their market presence at a global level. These collaborative initiatives promote innovation, expedite product development and improve disease treatment.

In January 2023, Thermo Fisher Scientific Inc. announced the successful acquisition of The Binding Site Group, which is a global leader in the specialty diagnostics market. The acquisition aims to enhance and expand the company's existing specialty diagnostics portfolio by bringing innovation in diagnostics and monitoring for multiple myeloma, in its diagnostics segment. Along with improving medical treatment, the partnership aims to enhance in-depth knowledge, research and development activities, and innovative product launches to further expand the company's global presence in the global analytical instrumentation market.



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*Companies mentioned above DO NOT hold any order as per market share and can be changed as per information available during research work.

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