+357 96 030922
info@marketpublishers.com

North America Gas Chromatography (GC) Market Forecast to 2031 - Regional Analysis - by Sample Introduction Technique (Liquid Injection, Static Headspace, Dynamic Headspace, Thermal Desorption, Pyrolysis, and Others), Injection Type (Split Injection, Splitless Injection, and Others), Detector Type (Flame Ionization Detector, Thermal Conductivity Detector, Electron Capture Detector, Thermionic Specific Detector, Flame Photometric Detector, Photo Ionization Detector, Mass Spectrometers, and Others), and End User (Oil & Gas, Chemical and Energy, Consumer Products, Pharmaceutical, and Others)

https://marketpublishers.com/r/N229C920A8A0EN.html
Date: September 2024
Pages: 119
Price: US$ 3,550.00 (Single User License)
ID: N229C920A8A0EN

Abstracts

The North America gas chromatography (GC) market was valued at US$ 745.98 million in 2023 and is expected to reach US$ 1,241.15 million by 2031; it is estimated to register a CAGR of 6.6% from 2023 to 2031 .

Technological Advancements, Remote Connectivity and Green Chemistry & Sustainable Operations Fuel North America Gas Chromatography (GC) Market

The development of intelligent, connected features to enhance and simplify user experience is a major trend in the gas chromatography market. Features, including automatic leak detections and troubleshooting diagnostics, enable operators to work more quickly and accurately while producing superior results. Furthermore, proactively

+357 96 030922
info@marketpublishers.com

assisting users with preventive maintenance procedures lowers unscheduled downtime and sample reruns, which significantly boosts productivity.

Moreover, cross-training operators are in high demand, and even when they are not physically present in a laboratory, they must be informed about what is going on in other ones at the same time. As "Industry 4.0" digital transformation drives resource deployment optimization throughout analytical laboratory organizations globally, remote connectivity is a trend of the future.

Another key trend is the use of less power, water, helium, and other natural resources in the development of many modern instruments. Other trends include green chemistry and sustainable operations. Recently developed, inexpensive, oil-free GC-MS pumps—which operate far more quietly and cleanly and prevent oil spills—are being used more frequently. Another emerging trend is the migration of applications to quicker, greener, and smaller GC systems using effective direct heating technology.

North America Gas Chromatography (GC) Market Overview

The North America gas chromatography market is segmented into the US, Canada, and Mexico. The region is a pioneer in the adoption of advanced technology for the analysis of a wide variety of samples across various industries. Gas chromatography has widely found its application in the oil & gas industry. According to the International Energy Agency (IEA), the total crude oil production in North America was 46,233,753 Terajoules (TJ) in 2021, an increase of 66% from 2000. Therefore, the growth of the oil and gas industry fosters the North America gas chromatography market growth. The construction of new power plants is rising in the region. For instance, Mexico is planning to build gas-fired power plants to increase the natural gas supply. For instance, in November 2022, US-based New Fortress Energy announced signing a deal with the Mexican government to develop the LNG project Lakach offshore gas field in Mexico, which is expected to be completed in 2024. Gas chromatographs (GC) play a crucial role in optimizing plant performance and determining the calorific value of the LNG for fiscal energy calculation quickly, accurately, and reliably. Hence, the rising number of power plants fuels the demand for gas chromatographs. To cater to this demand for gas chromatography, the region’s market players are launching various solutions. For example, in April 2021, Agilent Technologies Inc. launched the Agilent 8697 Headspace Sampler, the first headspace sampler with integrated gas chromatography communication. It marked the expansion of intelligence capability that was first launched with Agilent Intuvo 9000 GC System in 2016 and later with Agilent 8890 and 8860 GC Systems in 2019. Many researchers are focused on extending the life cycle

+357 96 030922
info@marketpublishers.com

and safety of Li-ion batteries used in electric vehicles. This leads to the adoption of analytical techniques such as gas chromatography as it is a suitable tool for the Li-ion battery electrolyte degradation mechanisms. Also, government initiatives to boost the electric vehicle market create a lucrative opportunity for the North America gas chromatography market. For instance, the Biden Administration has set a goal to electrify all new light-duty vehicles by 2027 and make all federal vehicle acquisitions electric by 2035.

North America Gas Chromatography (GC) Market Revenue and Forecast to 2031 (US$ Million)

North America Gas Chromatography (GC) Market Segmentation

The North America gas chromatography (GC) market is categorized into sample introduction technique, injection type, detector type, end user, and country.

Based on sample introduction technique, the North America gas chromatography (GC) market is segmented into liquid injection, static headspace, dynamic headspace, thermal desorption, pyrolysis, and others. The liquid injection segment held the largest share of North America gas chromatography (GC) market share in 2023.

In terms of injection type, the North America gas chromatography (GC) market is segmented into split injection, splitless injection, and others. The split injection segment held the largest share of North America gas chromatography (GC) market in 2023.

By detector type, the North America gas chromatography (GC) market is divided into flame ionization detector, thermal conductivity detector, electron capture detector, thermionic specific detector, flame photometric detector, photo ionization detector, mass spectrometers, and others. The others segment held the largest share of North America gas chromatography (GC) market in 2023.

Based on end user, the North America gas chromatography (GC) market is categorized into oil and gas, chemical and energy, consumer products (polymer plastic), pharmaceutical, and others. The oil and gas, chemical and energy segment held the largest share of North America gas chromatography (GC) market in 2023.

By country, the North America gas chromatography (GC) market is segmented into the US, Canada, and Mexico. The US dominated the North America gas chromatography (GC) market share in 2023.

+357 96 030922
info@marketpublishers.com

Agilent Technologies Inc; Thermo Fisher Scientific Inc; Shimadzu Corp; Separation Systems, Inc.; Wasson-ECE Instrumentation; Merck KGaA; PerkinElmer, Inc. (Revvity Inc); Restek Corporation; and VUV Analytics are some of the leading companies operating in the North America gas chromatography (GC) market.

+357 96 030922
info@marketpublishers.com

Contents

1. INTRODUCTION

1.1 The Insight Partners Research Report Guidance
1.2 Market Segmentation

2. EXECUTIVE SUMMARY

2.1 Key Insights
2.2 Market Attractiveness

3. RESEARCH METHODOLOGY

3.1 Coverage
3.2 Secondary Research
3.3 Primary Research

4. GAS CHROMATOGRAPHY (GC) MARKET LANDSCAPE

4.1 Overview
4.2 PEST Analysis
4.3 Ecosystem Analysis
  4.3.1 Instrument Manufacturers:
  4.3.2 Accessories and Consumables Providers:
  4.3.3 End Users:
  4.3.4 List of Vendors in the Value Chain
4.4 Premium Insights
  4.4.1 Aftermarket Services

5. NORTH AMERICA GAS CHROMATOGRAPHY (GC) MARKET - KEY MARKET DYNAMICS

5.1 Market Drivers
  5.1.1 Growing Emphasis on Quality Control Requirements
  5.1.2 Rising Adoption of Gas Chromatography-Mass Spectrometry Technique
  5.1.3 Proliferation of Oil & Gas Industry
5.2 Market Restraints
  5.2.1 Lack of Skilled Professionals

+357 96 030922
info@marketpublishers.com

5.2.2 High Cost of Gas Chromatography Equipment
5.3 Market Opportunities
5.3.1 Emerging Proteomics Industry
5.4 Market Trends
5.4.1 Technological Advancements, Remote Connectivity, and Green Chemistry & Sustainable Operations
5.5 Impact of Drivers and Restraints:

6. GAS CHROMATOGRAPHY (GC) MARKET - NORTH AMERICA ANALYSIS

6.1 Overview
6.2 Gas Chromatography (GC) Market Revenue (US$ Million), 2021-2031
6.3 Gas Chromatography (GC) Market Forecast Analysis

7. NORTH AMERICA GAS CHROMATOGRAPHY (GC) MARKET ANALYSIS - BY SAMPLE INTRODUCTION TECHNIQUES

7.1 Liquid Injection
7.1.1 Overview
7.1.2 Liquid Injection: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
7.2 Static Headspace
7.2.1 Overview
7.2.2 Static Headspace: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
7.3 Dynamic Headspace
7.3.1 Overview
7.3.2 Dynamic Headspace: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
7.4 Thermal Desorption
7.4.1 Overview
7.4.2 Thermal Desorption: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
7.5 Pyrolysis
7.5.1 Overview
7.5.2 Pyrolysis: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
7.6 Others
7.6.1 Overview

+357 96 030922
info@marketpublishers.com

7.6.2 Others: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)

8. NORTH AMERICA GAS CHROMATOGRAPHY (GC) MARKET ANALYSIS - BY INJECTION TYPE

8.1 Split Injection
8.1.1 Overview
8.1.2 Split Injection: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
8.2 Splitless Injection
8.2.1 Overview
8.2.2 Splitless Injection: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
8.3 Others
8.3.1 Overview
8.3.2 Others: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)

9. NORTH AMERICA GAS CHROMATOGRAPHY (GC) MARKET ANALYSIS - BY DETECTOR TYPE

9.1 Flame Ionization Detector
9.1.1 Overview
9.1.2 Flame Ionization Detector: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
9.2 Thermal Conductivity Detector
9.2.1 Overview
9.2.2 Thermal Conductivity Detector: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
9.3 Electron Capture Detector
9.3.1 Overview
9.3.2 Electron Capture Detector: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
9.4 Thermionic Specific Detector
9.4.1 Overview
9.4.2 Thermionic Specific Detector: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
9.5 Flame Photometric Detector

+357 96 030922
info@marketpublishers.com

9.5.1 Overview
9.5.2 Flame Photometric Detector: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
9.6 Photo Ionization Detector
9.6.1 Overview
9.6.2 Photo Ionization Detector: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
9.7 Mass Spectrometers
9.7.1 Overview
9.7.2 Mass Spectrometers: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
9.8 Others
9.8.1 Overview
9.8.2 Others: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)

10. NORTH AMERICA GAS CHROMATOGRAPHY (GC) MARKET ANALYSIS - BY END USER

10.1 Oil and Gas
10.1.1 Overview
10.1.2 Oil and Gas: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
10.2 Chemical and Energy
10.2.1 Overview
10.2.2 Chemical and Energy: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
10.3 Consumer Products
10.3.1 Overview
10.3.2 Consumer Products: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
10.4 Pharmaceutical
10.4.1 Overview
10.4.2 Pharmaceutical: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
10.5 Others
10.5.1 Overview
10.5.2 Others: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)

+357 96 030922
info@marketpublishers.com

11. NORTH AMERICA GAS CHROMATOGRAPHY (GC) MARKET - COUNTRY ANALYSIS

11.1 North America Market Overview
11.1.1 North America: Gas Chromatography (GC) Market, By Key Country - Revenue and Forecast to 2023 (US$ Million)
11.1.2 North America: Gas Chromatography (GC) Market - Revenue and Forecast Analysis - by Country
11.1.2.1 North America: Gas Chromatography (GC) Market - Revenue and Forecast Analysis - by Country
11.1.2.2 United States: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
11.1.2.2.1 United States: Gas Chromatography (GC) Market Breakdown, by Sample Introduction Techniques
11.1.2.2.2 United States: Gas Chromatography (GC) Market Breakdown, by Injection Type
11.1.2.2.3 United States: Gas Chromatography (GC) Market Breakdown, by Detector Type
11.1.2.2.4 United States: Gas Chromatography (GC) Market Breakdown, by End User
11.1.2.3 Canada: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
11.1.2.3.1 Canada: Gas Chromatography (GC) Market Breakdown, by Sample Introduction Techniques
11.1.2.3.2 Canada: Gas Chromatography (GC) Market Breakdown, by Injection Type
11.1.2.3.3 Canada: Gas Chromatography (GC) Market Breakdown, by Detector Type
11.1.2.3.4 Canada: Gas Chromatography (GC) Market Breakdown, by End User
11.1.2.4 Mexico: Gas Chromatography (GC) Market - Revenue and Forecast to 2031 (US$ Million)
11.1.2.4.1 Mexico: Gas Chromatography (GC) Market Breakdown, by Sample Introduction Techniques
11.1.2.4.2 Mexico: Gas Chromatography (GC) Market Breakdown, by Injection Type
11.1.2.4.3 Mexico: Gas Chromatography (GC) Market Breakdown, by Detector Type
11.1.2.4.4 Mexico: Gas Chromatography (GC) Market Breakdown, by End User

12. COMPETITIVE LANDSCAPE

+357 96 030922
info@marketpublishers.com

12.1 Heat Map Analysis by Key Players
12.2 Company Positioning & Concentration

13. INDUSTRY LANDSCAPE

13.1 Overview
13.2 Market Initiative

14. COMPANY PROFILES

14.1 Agilent Technologies Inc
  14.1.1 Key Facts
  14.1.2 Business Description
  14.1.3 Products and Services
  14.1.4 Financial Overview
  14.1.5 SWOT Analysis
  14.1.6 Key Developments
14.2 Thermo Fisher Scientific Inc
  14.2.1 Key Facts
  14.2.2 Business Description
  14.2.3 Products and Services
  14.2.4 Financial Overview
  14.2.5 SWOT Analysis
  14.2.6 Key Developments
14.3 Shimadzu Corp
  14.3.1 Key Facts
  14.3.2 Business Description
  14.3.3 Products and Services
  14.3.4 Financial Overview
  14.3.5 SWOT Analysis
  14.3.6 Key Developments
14.4 Separation Systems, Inc.
  14.4.1 Key Facts
  14.4.2 Business Description
  14.4.3 Products and Services
  14.4.4 Financial Overview
  14.4.5 SWOT Analysis
  14.4.6 Key Developments

+357 96 030922
info@marketpublishers.com

14.5 Wasson-ECE Instrumentation
14.5.1 Key Facts
14.5.2 Business Description
14.5.3 Products and Services
14.5.4 Financial Overview
14.5.5 SWOT Analysis
14.5.6 Key Developments
14.6 Merck KGaA
14.6.1 Key Facts
14.6.2 Business Description
14.6.3 Products and Services
14.6.4 Financial Overview
14.6.5 SWOT Analysis
14.6.6 Key Developments
14.7 PerkinElmer, Inc. (Revvity Inc)
14.7.1 Key Facts
14.7.2 Business Description
14.7.3 Products and Services
14.7.4 Financial Overview
14.7.5 SWOT Analysis
14.7.6 Key Developments
14.8 Restek Corporation
14.8.1 Key Facts
14.8.2 Business Description
14.8.3 Products and Services
14.8.4 Financial Overview
14.8.5 SWOT Analysis
14.8.6 Key Developments
14.9 VUV Analytics
14.9.1 Key Facts
14.9.2 Business Description
14.9.3 Products and Services
14.9.4 Financial Overview
14.9.5 SWOT Analysis
14.9.6 Key Developments

15. APPENDIX

15.1 About the Insight Partners

+357 96 030922
info@marketpublishers.com

15.2 Word Index

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: North America Gas Chromatography (GC) Market Forecast to 2031 - Regional Analysis - by Sample Introduction Technique (Liquid Injection, Static Headspace, Dynamic Headspace, Thermal Desorption, Pyrolysis, and Others), Injection Type (Split Injection, Splitless Injection, and Others), Detector Type (Flame Ionization Detector, Thermal Conductivity Detector, Electron Capture Detector, Thermionic Specific Detector, Flame Photometric Detector, Photo Ionization Detector, Mass Spectrometers, and Others), and End User (Oil & Gas, Chemical and Energy, Consumer Products, Pharmaceutical, and Others)

Product link: https://marketpublishers.com/r/N229C920A8A0EN.html

Price: US$ 3,550.00 (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/N229C920A8A0EN.html