

Carbon Nanomaterials Market Size, Share, and Analysis, By Product Type (Carbon nanotubes, Graphene, Carbon Nanofibers, Fullerenes, and Others), By Method (Arc Discharge, Laser Ablation, Chemical Vapor Deposition, Catalyzed Chemical Vapor Deposition, and Others), By Application (Automotive, Packaging, Semiconductor & Electronics, Aviation, Healthcare, and Others), and By Region (North America, Europe, Asia-Pacific, And Rest of the World) And Regional Forecast 2024-2034

<https://marketpublishers.com/r/C3E1CE3EFFE9EN.html>

Date: February 2024

Pages: 433

Price: US\$ 5,150.00 (Single User License)

ID: C3E1CE3EFFE9EN

Abstracts

Carbon Nanomaterials Market Size, Share, and Analysis, By Product Type (Carbon nanotubes, Graphene, Carbon Nanofibers, Fullerenes, and Others), By Method (Arc Discharge, Laser Ablation, Chemical Vapor Deposition, Catalyzed Chemical Vapor Deposition, and Others), By Application (Automotive, Packaging, Semiconductor & Electronics, Aviation, Healthcare, and Others), and By Region (North America, Europe, Asia-Pacific, And Rest of the World) And Regional Forecast 2024-2034

PRODUCT OVERVIEW

Carbon Nanomaterials Market is anticipated to exhibit a Compound Annual Growth Rate (CAGR) of 23.6% during the forecast span from 2024 to 2034. In 2023, the market size was assessed at USD 3.7 billion and is projected to reach USD 38 billion by the completion of 2034.

Carbon nanomaterials are composed of carbon atoms organized in unique nanoscale structures that exhibit exceptional physical and chemical properties. These materials are distributed among various types such as carbon nanotubes (CNTs), graphene, and fullerenes. Carbon nanotubes or CNTs are cylindrical structures with excellent strength and electrical conductivity. Graphene is a single layer of carbon atoms organized in a hexagonal structure that possess similar properties to CNTs. Fullerenes, which include buckyballs and buckytubes, have spherical or tubular shapes and offer distinct properties due to their nanoscale dimensions. Moreover, nanomaterials demonstrate high surface area, thermal conductivity, and electron mobility, which makes them promising candidates for improvements in electronics, medicine, and energy-based applications.

MARKET HIGHLIGHTS

Carbon Nanomaterials Market is expected to reach USD 38 billion over the forecast period, driven by their distinct characteristics and adaptable applications across various industries. Carbon nanomaterials, including carbon nanotubes (CNTs), graphene, and fullerenes, serve vital functions across various applications like electronics, aerospace, energy, and healthcare. For instance, the electronics industry benefits from the superior conductivity and strength of CNTs and graphene. Additionally, in the aerospace sector, these nanomaterials contribute in providing lightweight and durable structural solutions. Carbon nanoparticles are further used in energy sector in the manufacturing of batteries, supercapacitors, and solar cells. Moreover, they are used in drug delivery systems and imaging technologies across healthcare. However, industrial scalability, along with cost limitations could be major barriers to the growth and require constant efforts to fully realize the potential of carbon nanomaterials.

Carbon Nanomaterials Market Segments:

By Product Type

Carbon nanotubes

Graphene

Carbon Nanofibers

Fullerenes

Others

By Method

Arc Discharge

Laser Ablation

Chemical Vapor Deposition

Catalyzed Chemical Vapor Deposition

Others

By Application

Automotive

Packaging

Semiconductor & Electronics

Aviation

Healthcare

Others

MARKET DYNAMICS

Growth Drivers

Innovations in Technology t%l%Create Development Prospects

Increasing R&D Funding will Provide New Opportunities for Growth

Restraint

Issues with Scalability and Cost Could Be Restricting Industry Growth

Key Players

Arkema

CNRS

Raymor

OCSiAl

Nantero, Inc.

Nanox Technology

Graphenea

XG Sciences, Inc.

Mitsubishi Chemical Corporation

Bayer AG

Hyperion Metals LLC

Applied Nanotech, Inc.

Nanoball Corporation

Temasek Polytechnic

CNR Research Center for Advanced Materials Division

Other Prominent Players (Company Overview, Business Strategy, Key Product Offerings, Financial Performance, Key Performance Indicators, Risk Analysis, Recent Development, Regional Presence, SWOT Analysis)

Global Laboratory Temperature Control Units Market is further segmented by region into:

North America Market Size, Share, Trends, Opportunities, Y-o-Y Growth, CAGR – United States and Canada

Latin America Market Size, Share, Trends, Opportunities, Y-o-Y Growth, CAGR – Mexico, Argentina, Brazil and Rest of Latin America

Europe Market Size, Share, Trends, Opportunities, Y-o-Y Growth, CAGR – United Kingdom, France, Germany, Italy, Spain, Belgium, Hungary, Luxembourg, Netherlands, Poland, NORDIC, Russia, Turkey and Rest of Europe

Asia Pacific Market Size, Share, Trends, Opportunities, Y-o-Y Growth, CAGR – India, China, South Korea, Japan, Malaysia, Indonesia, New Zealand, Australia and Rest of APAC

Middle East and Africa Market Size, Share, Trends, Opportunities, Y-o-Y Growth, CAGR – North Africa, Israel, GCC, South Africa and Rest of MENA

Reasons to Purchase this Report

Qualitative and quantitative analysis of the market based on segmentation involving both economic as well as non-economic factors

Provision of market value (USD Billion) data for each segment and sub-segment

Indicates the region and segment that is expected to witness the fastest growth as well as to dominate the market

Analysis by geography highlighting the consumption of the product/service in the region as well as indicating the factors that are affecting the market within each region

Competitive landscape which incorporates the market ranking of the major players, along with new service/product launches, partnerships, business expansions, and acquisitions in the past five years of companies profiled

Extensive company profiles comprising of company overview, company insights, product benchmarking, and SWOT analysis for the major market players

The current as well as the future market outlook of the industry with respect to recent developments which involve growth opportunities and drivers as well as challenges and restraints of both emerging as well as developed regions

Includes in-depth analysis of the market of various perspectives through Porter's five forces analysis

Provides insight into the market through Value Chain

Market dynamics scenario, along with growth opportunities of the market in the years to come

3-month post-sales analyst support.

Contents

1.EXECUTIVE SUMMARY

- 1.1. Regional Market Share
- 1.2. Business Trends
- 1.3. Carbon Nanomaterials Market: COVID-19 Outbreak
- 1.4. Regional Trends
- 1.5. Segmentation Snapshot

2. RESEARCH METHODOLOGY

- 2.1. Research Objective
- 2.2. Research Approach
- 2.3. Data Sourcing and Methodology
- 2.4. Primary Research
- 2.5. Secondary Research
 - 2.5.1. Paid Sources
 - 2.5.2. Public Sources
- 2.6. Market Size Estimation and Data Triangulation

3. MARKET CHARACTERISTICS

- 3.1. Market Definition
- 3.2. Carbon Nanomaterials Market: COVID-19 Impact
- 3.3. Key Segmentations
- 3.4. Key Developments
- 3.5. Allied Industry Data

4. CARBON NANOMATERIALS MARKET – INDUSTRY INSIGHTS

- 4.1. Industry Segmentation
- 4.2. COVID-19 overview on world economy
- 4.3. Industry ecosystem Channel analysis
- 4.4. Innovation & Sustainability

5. MACROECONOMIC INDICATORS

6. RECENT DEVELOPMENTS

7. MARKET DYNAMICS

- 7.1. Introduction
- 7.2. Growth Drivers
- 7.3. Market Opportunities
- 7.4. Market Restraints
- 7.5. Market Trends

8. RISK ANALYSIS

9. MARKET ANALYSIS

- 9.1. Porters Five Forces
- 9.2. PEST Analysis
 - 9.2.1. Political
 - 9.2.2. Economic
 - 9.2.3. Social
 - 9.2.4. Technological

10. CARBON NANOMATERIALS MARKET

- 10.1. Overview
- 10.2. Historical Analysis (2019-2022)
 - 10.2.1. Market Size, Y-o-Y Growth (%) and Market Forecast

11. CARBON NANOMATERIALS MARKET SIZE & FORECAST 2024A-2034F

- 11.1. Overview
- 11.2. Key Findings
- 11.3. Market Segmentation
 - 11.3.1. By Product Type
 - 11.3.1.1. Carbon Nanotubes
 - 11.3.1.1.1. By Value (USD Million) 2024-2034F
 - 11.3.1.1.2. Market Share (%) 2024-2034F
 - 11.3.1.1.3. Y-o-Y Growth (%) 2024-2034F
 - 11.3.1.2. Graphene
 - 11.3.1.2.1. By Value (USD Million) 2024-2034F
 - 11.3.1.2.2. Market Share (%) 2024-2034F

- 11.3.1.2.3.Y-o-Y Growth (%) 2024-2034F
- 11.3.1.3. Carbon Nanofibers
 - 11.3.1.3.1. By Value (USD Million) 2024-2034F
 - 11.3.1.3.2. Market Share (%) 2024-2034F
 - 11.3.1.3.3. Y-o-Y Growth (%) 2024-2034F
- 11.3.1.4. Fullerenes
 - 11.3.1.4.1. By Value (USD Million) 2024-2034F
 - 11.3.1.4.2. Market Share (%) 2024-2034F
 - 11.3.1.4.3. Y-o-Y Growth (%) 2024-2034F
- 11.3.1.5. Others
 - 11.3.1.5.1. By Value (USD Million) 2024-2034F
 - 11.3.1.5.2. Market Share (%) 2024-2034F
 - 11.3.1.5.3. Y-o-Y Growth (%) 2024-2034F
- 11.3.2. By Method
 - 11.3.2.1. Arc Discharge
 - 11.3.2.1.1. By Value (USD Million) 2024-2034F
 - 11.3.2.1.2. Market Share (%) 2024-2034F
 - 11.3.2.1.3. Y-o-Y Growth (%) 2024-2034F
 - 11.3.2.2. Laser Ablation
 - 11.3.2.2.1. By Value (USD Million) 2024-2034F
 - 11.3.2.2.2. Market Share (%) 2024-2034F
 - 11.3.2.2.3. Y-o-Y Growth (%) 2024-2034F
 - 11.3.2.3. Chemical Vapor Deposition
 - 11.3.2.3.1. By Value (USD Million) 2024-2034F
 - 11.3.2.3.2. Market Share (%) 2024-2034F
 - 11.3.2.3.3. Y-o-Y Growth (%) 2024-2034F
 - 11.3.2.4. Catalyzed Chemical Vapor Deposition
 - 11.3.2.4.1. By Value (USD Million) 2024-2034F
 - 11.3.2.4.2. Market Share (%) 2024-2034F
 - 11.3.2.4.3. Y-o-Y Growth (%) 2024-2034F
 - 11.3.2.5. Others
 - 11.3.2.5.1. By Value (USD Million) 2024-2034F
 - 11.3.2.5.2. Market Share (%) 2024-2034F
 - 11.3.2.5.3. Y-o-Y Growth (%) 2024-2034F
- 11.3.3. By Application
 - 11.3.3.1. Automotive
 - 11.3.3.1.1. By Value (USD Million) 2024-2034F
 - 11.3.3.1.2. Market Share (%) 2024-2034F
 - 11.3.3.1.3. Y-o-Y Growth (%) 2024-2034F

- 11.3.3.2. Packaging
 - 11.3.3.2.1. By Value (USD Million) 2024-2034F
 - 11.3.3.2.2. Market Share (%) 2024-2034F
 - 11.3.3.2.3. Y-o-Y Growth (%) 2024-2034F
- 11.3.3.3. Semiconductor & Electronics
 - 11.3.3.3.1. By Value (USD Million) 2024-2034F
 - 11.3.3.3.2. Market Share (%) 2024-2034F
 - 11.3.3.3.3. Y-o-Y Growth (%) 2024-2034F
- 11.3.3.4. Aviation
 - 11.3.3.4.1. By Value (USD Million) 2024-2034F
 - 11.3.3.4.2. Market Share (%) 2024-2034F
 - 11.3.3.4.3. Y-o-Y Growth (%) 2024-2034F
- 11.3.3.5. Healthcare
 - 11.3.3.5.1. By Value (USD Million) 2024-2034F
 - 11.3.3.5.2. Market Share (%) 2024-2034F
 - 11.3.3.5.3. Y-o-Y Growth (%) 2024-2034F
- 11.3.3.6. Others
 - 11.3.3.6.1. By Value (USD Million) 2024-2034F
 - 11.3.3.6.2. Market Share (%) 2024-2034F
 - 11.3.3.6.3. Y-o-Y Growth (%) 2024-2034F

12. NORTH AMERICA CARBON NANOMATERIALS MARKET SIZE & FORECAST 2024A-2034F

- 12.1. Overview
- 12.2. Key Findings
- 12.3. Market Segmentation
 - 12.3.1. By Product Type
 - 12.3.2. By Method
 - 12.3.3. By Application
- 12.4. Country
 - 12.4.1. United States
 - 12.4.2. Canada

13. EUROPE CARBON NANOMATERIALS MARKET SIZE & FORECAST 2024A-2034F

- 13.1. Overview
- 13.2. Key Findings

13.3. Market Segmentation

13.3.1. By Product Type

13.3.2. By Method

13.3.3. By Application

13.4. Country

13.4.1. Germany

13.4.2. United Kingdom

13.4.3. France

13.4.4. Italy

13.4.5. Spain

13.4.6. Russia

13.4.7. Rest of Europe (BENELUX, NORDIC, Hungary, Turkey & Poland)

14. ASIA-PACIFIC CARBON NANOMATERIALS MARKET SIZE & FORECAST 2024A-2034F

14.1. Overview

14.2. Key Findings

14.3. Market Segmentation

14.3.1. By Product Type

14.3.2. By Method

14.3.3. By Application

14.4. Country

14.4.1. India

14.4.2. China

14.4.3. South Korea

14.4.4. Japan

14.4.5. Rest of APAC

15. MIDDLE EAST AND AFRICA CARBON NANOMATERIALS MARKET SIZE & FORECAST 2024A-2034F

15.1. Overview

15.2. Key Findings

15.3. Market Segmentation

15.3.1. By Product Type

15.3.2. By Method

15.3.3. By Application

15.4. Country

- 15.4.1. Israel
- 15.4.2. GCC
- 15.4.3. North Africa
- 15.4.4. South Africa
- 15.4.5. Rest of Middle East and Africa

16. LATIN AMERICA CARBON NANOMATERIALS MARKET SIZE & FORECAST 2024A-2034F

- 16.1. Overview
- 16.2. Key Findings
- 16.3. Market Segmentation
 - 16.3.1. By Product Type
 - 16.3.2. By Method
 - 16.3.3. By Application
- 16.4. Country
 - 16.4.1. Mexico
 - 16.4.2. Brazil
 - 16.4.3. Rest of Latin America

17. COMPETITIVE LANDSCAPE

- 17.1. Company market share, 2023
- 17.2. Key player overview
- 17.3. Key stakeholders

18. COMPANY PROFILES

- 18.1. Arkema
 - 18.1.1. Company Overview
 - 18.1.2. Financial Overview
 - 18.1.3. Key Product; Analysis
 - 18.1.4. Company Assessment
 - 18.1.4.1. Product Portfolio
 - 18.1.4.2. Key Clients
 - 18.1.4.3. Market Share
 - 18.1.4.4. Recent News & Development (Last 3 Yrs.)
 - 18.1.4.5. Executive Team
- 18.2. CNRS

- 18.3. Raymor
- 18.4. OCSiAl
- 18.5. Nantero, Inc.
- 18.6. Nanox Technology
- 18.7. Graphenea
- 18.8. XG Sciences, Inc.
- 18.9. Mitsubishi Chemical Corporation
- 18.10. Bayer AG
- 18.11. Hyperion Metals LLC
- 18.12. Applied Nanotech, Inc.
- 18.13. Nanoball Corporation
- 18.14. Temasek Polytechnic
- 18.15. CNR Rao Advanced Materials Division
- 18.16. Other Prominent Players

19. APPENDIX

20. CONSULTANT RECOMMENDATION

I would like to order

Product name: Carbon Nanomaterials Market Size, Share, and Analysis, By Product Type (Carbon nanotubes, Graphene, Carbon Nanofibers, Fullerenes, and Others), By Method (Arc Discharge, Laser Ablation, Chemical Vapor Deposition, Catalyzed Chemical Vapor Deposition, and Others), By Application (Automotive, Packaging, Semiconductor & Electronics, Aviation, Healthcare, and Others), and By Region (North America, Europe, Asia-Pacific, And Rest of the World) And Regional Forecast 2024-2034

Product link: <https://marketpublishers.com/r/C3E1CE3EFFE9EN.html>

Price: US\$ 5,150.00 (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/C3E1CE3EFFE9EN.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