

Global Carbon Nanotubes (CNT) Market: Analysis By Technology (Arc Discharge, Laser Ablation, CVD, Catalytic CVD, High Pressure Carbon Monoxide, CoMoCAT, Floating Catalyst, and Others), By Type (Single Walled and Multi Walled), By Application (Semiconductor & Electronics, Energy & Storage, Structural Composites, Chemical & Materials, Medical & Pharmacy, and Others), By Region Size and Trends with Impact of COVID-19 and Forecast up to 2028

<https://marketpublishers.com/r/G3C468EE1F66EN.html>

Date: May 2023

Pages: 152

Price: US\$ 2,250.00 (Single User License)

ID: G3C468EE1F66EN

Abstracts

Carbon Nanotubes (CNT) are one dimensional allotropes of carbon made by rolled-up sheets of single-layer carbon atoms (graphene). Carbon nanotubes are composed of carbon atoms linked in hexagonal shapes, with each carbon atom covalently bonded to three other carbon atoms. The properties and applications of carbon nanotubes can vary depending on their type, diameter, length, and functionalization. The global carbon nanotube (CNT) market was valued at US\$5.72 billion in 2022. The market value is forecasted to grow to US\$13.32 billion by 2028.

Rising global energy demand, ongoing advancements in material science and manufacturing technologies, increasing use of CNTs as conductive fillers in ESD materials, EMI Shielding, & electronics packaging, favourable government initiatives to reduce greenhouse emissions and promote renewable energy sources, etc., have been positively contributing towards increased demand for carbon nanotubes. Other significant factor is ongoing technological advancements and innovations in the market by CNT manufacturing companies to remain competitive in the market and strengthen their current portfolios, while attracting new customers. The market is anticipated to

grow at a CAGR of approx. 15% during the forecasted period of 2023-2028.

Market Segmentation Analysis:

By Technology: The report provides the bifurcation of the market into eight segments based on technology: chemical vapor deposition (CVD), arc discharge, laser ablation, floating catalyst, CoMoCAT, catalytic CVD, high pressure carbon monoxide, and others. CVD carbon nanotubes market is the largest segment of global CNT market, owing to commercial adoption of CVD by key players, rapidly expanding end user industries, rising demand from emerging application in areas such as plastic additives, medical implants, carrier tapes, coatings, elastomers, etc., and added advantages offered by CVD process in the form of scalability and control, versatile substrate compatibility, vertical alignment capability, etc.

By Type: The report provides the bifurcation of the market into two segments based on type: single walled and multi walled. Multi walled carbon nanotubes market is both the largest and the fastest growing segment of global CNT market, owing to rising adoption of electric vehicles, growing demand for advanced materials with improved performance & efficiency, increased advancements in material science, ongoing improvements in product quality and wide application of MWCNT in various end-use industries, such as medical & healthcare, electronics, automotive, aviation etc. SWCNT is currently used as a conductive additive for anode when applying silicon anode material. As such, SWCNT is a must in silicon anode materials. It is expected that growth potential of SWCNT conductive additive to stand out from 2023, as more vehicle types adopt silicon anode materials. SWCNT requires more advanced technology than MWCNT.

By Application: The report provides the bifurcation of the market into six segments based on application: semiconductor and electronics, structural composites, energy and storage, chemical and materials, medical and pharmacy, and others. Semiconductor and electronics carbon nanotubes market is the largest segment of global CNT market owing to increasing demand from various manufacturing industries, rising consumer awareness, growing demand of consumer electronics, digitalization, rising popularity of electric vehicles and increasing number of new startups & businesses in major emerging economies.

By Region: The report provides insight into the carbon nanotube market based on the regions namely, Asia Pacific, North America, Europe, and rest of the world. North America carbon nanotubes market holds the largest share of global carbon nanotubes market, owing to the presence of a large number of end user industries, ever-increasing

demand for faster and newer electronic products from consumers, rapidly expanding healthcare sector, rising number of regulations imposed by government to promote green energy, and increasing use of CNTs in touchscreens and input devices such as robots, displays, and other electronic consumer goods, etc. North America carbon nanotubes market is divided into three regions on the basis of geographical operations, namely, the US, Canada and Mexico, where the US carbon nanotubes market is both the largest and fastest growing region of North America CNT market, owing to rising health awareness, increasing environmental and sustainability concerns, growing demand of CNTs from automotive, medical and energy sectors and increasing focus of carbon nanotubes companies on product innovations, collaborations and acquisitions for expanding consumer base and gaining larger market share.

Market Dynamics:

Growth Drivers: The global CNT market has been growing over the past few years, due to factors such as rising demand in electrical, electronics & semiconductor applications, increasing application in energy storage, growing demand of CNTs in other end user industries, increasing demand of CNTs in renewable energy and water treatment, etc. Carbon nanotubes are increasingly demanded for energy storage applications, particularly in the development of high-performance batteries, supercapacitors, and fuel cells, due to their large surface area, excellent electrical conductivity, and mechanical strength, which allows for improved energy storage and conversion capabilities. CNTs are mainly used in battery electrodes as conductive additives or coating material to improve electrode's charge transfer kinetics & stability and facilitate effective charge transfer, hence improving battery's energy storage capacity, cycling stability, and overall efficiency. Therefore, rising demand for carbon nanotubes that are increasingly used for efficient and high-capacity energy storage batteries and systems, will continue to accelerate the growth of global carbon nanotubes market.

Challenges: However, the market growth would be negatively impacted by various challenges such as growing environmental and safety concerns, high production and manufacturing cost, etc. The high production and manufacturing cost of CNTs is associated with rising complexity of synthesis process, and increased need for controlled environment, specialized equipment, and precise conditions. These processes often demand expensive catalyst materials, such as transition metals & high-quality carbon feedstock, such as carbon monoxide or hydrocarbon gases, that are costly to be obtained, especially if specific purity and quality standards are required. Therefore, high production and manufacturing cost will have negative effect on the production of carbon nanotubes, impeding the growth of global carbon nanotubes

market in the forecasted years.

Trends: The market is projected to grow at a fast pace during the forecasted period, due to various latest trends such as integration of AI and ML, rising adoption of electric vehicles (EVs), emergence of functionalized carbon nanotubes, increasing integration of nanotechnology and biotechnology, etc. CNT manufacturers are increasingly integrating real-time process monitoring, sensor data, and AI analytics to better analyze production process parameters, identify correlations, and recognize optimal synthesis conditions, resulting in improved control over CNT growth, increased production efficiency, higher yield, and improved quality control. Similarly, machine learning is used to analyze device performance data, experimental results, and factors influencing device behavior and performance under different settings, further optimizing the performance of CNT-based devices, such as transistors, sensors, or energy storage systems. Therefore, increasing integration of artificial intelligence (AI), machine learning (ML), and deep learning technologies will continue to boost the growth of global carbon nanotubes market in the forecasted years.

Impact Analysis of COVID-19 and Way Forward:

COVID-19 brought in many changes in the world in terms of reduced productivity, loss of life, business closures, closing down of factories and organizations, and shift to an online mode of work. Lockdown policies, imposed by the government to prevent the spread of virus forced various end user industries to either shut down or run low on production capacity, resulting in lower production and manufacturing activities by various end user industries. Since end user industries demand carbon nanotubes-based materials and products for production of electronic components, high-performance energy storage devices, and development of supercapacitors, biosensors & diagnostic devices, drug delivery systems, fuel cells, etc., there was a sudden fall in the demand of CNTs as result of reduced production activities, having negative impact on both demand and consumption of CNTs by end user industries.

Furthermore, there were increasing restrictions in the form of social distancing policies & the number of people that were allowed by industries to work in a physical environment and with CNT manufacturing companies relying heavily on physical presence of experienced workforce to handle the intricate processes involved in CNT production, COVID-19 pandemic shifted everything online, making it difficult for CNT manufacturing facilities to meet up with the ongoing demand, provide in-person training to new employees, and maintain regular repairs and upgrades of complex equipment and machinery, resulting in reduced production capacity & lower output productivity,

further hampering the overall growth of the global carbon nanotube market.

Competitive Landscape:

Global carbon nanotube market is consolidated with top four players accounting for more than 60% market share. Established companies in the market are engaged in various R&D activities & initiatives to develop and deploy new and more efficient products in the market. For instance, on June 14, 2022, OCSiAl announced that the company would launch a graphene nanotube synthesis facility near Belgrade, Serbia, in the first half of 2023.

The key players of the market are:

Arkema Group (Arkema S.A.)

Resonac Holdings Corporation (Showa Denko K.K.)

LG Chem Ltd.

Cabot Corporation

Klean Industries Inc.

CHASM Advanced Materials, Inc.

OCSiAl; Raymor Industries Inc.

Raymor Industries Inc.

Chengdu Organic Chemicals Co. Ltd. (Timesnano)

Cheap Tubes Inc.

Hyperion Catalysis International, Inc.

Jiangsu Cnano Technology Co., Ltd

Nanocyl SA

Contents

1. EXECUTIVE SUMMARY

2. INTRODUCTION

2.1 Carbon Nanotubes: An Overview

2.1.1 Definition of Carbon Nanotubes

2.1.2 Benefits of Carbon Nanotubes

2.1.3 Properties of Carbon Nanotubes

2.2 Carbon Nanotubes Segmentation: An Overview

2.2.1 Carbon Nanotubes Segmentation

3. GLOBAL MARKET ANALYSIS

3.1 Global Carbon Nanotubes Market: An Analysis

3.1.1 Global Carbon Nanotubes Market: An Overview

3.1.2 Global Carbon Nanotubes Market by Value

3.1.3 Global Carbon Nanotubes Market by Type (Single Walled and Multi Walled)

3.1.4 Global Carbon Nanotubes Market by Technology (Chemical Vapor Deposition (CVD), Arc Discharge, Laser Ablation, Floating Catalyst, CoMoCAT, Catalytic CVD, High Pressure Carbon Monoxide, and Others)

3.1.5 Global Carbon Nanotubes Market by Application (Semiconductor and Electronics, Structural Composites, Energy and Storage, Chemical and Materials, Medical and Pharmacy, and Others)

3.1.6 Global Carbon Nanotubes Market by Region (North America, Europe, Asia Pacific, and Rest of the World)

3.2 Global Carbon Nanotubes Market: Type Analysis

3.2.1 Global Carbon Nanotubes Market by Type: An Overview

3.2.2 Global Single Walled Carbon Nanotubes Market by Value

3.2.3 Global Multi Walled Carbon Nanotubes Market by Value

3.3 Global Carbon Nanotubes Market: Technology Analysis

3.3.1 Global Carbon Nanotubes Market by Technology: An Overview

3.3.2 Global Arc Discharge Carbon Nanotubes Market by Value

3.3.3 Global Laser Ablation Carbon Nanotubes Market by Value

3.3.4 Global Chemical Vapor Deposition Carbon Nanotubes Market by Value

3.3.5 Global Catalytic Chemical Vapor Deposition Carbon Nanotubes Market by Value

3.3.6 Global High Pressure Carbon Monoxide Carbon Nanotubes Market by Value

3.3.7 Global CoMoCAT Carbon Nanotubes Market by Value

- 3.3.8 Global Floating Catalyst Carbon Nanotubes Market by Value
- 3.3.9 Global Others Carbon Nanotubes Market by Value
- 3.4 Global Carbon Nanotubes Market: Application Analysis
 - 3.4.1 Global Carbon Nanotubes Market by Application: An Overview
 - 3.4.2 Global Semiconductor and Electronics Carbon Nanotubes Market by Value
 - 3.4.3 Global Energy and Storage Carbon Nanotubes Market by Value
 - 3.4.4 Global Structural Composites Carbon Nanotubes Market by Value
 - 3.4.5 Global Chemical and Materials Carbon Nanotubes Market by Value
 - 3.4.6 Global Medical and Pharmacy Carbon Nanotubes Market by Value
 - 3.4.7 Global Others Carbon Nanotubes Market by Value

4. REGIONAL MARKET ANALYSIS

- 4.1 North America Carbon Nanotubes Market: An Analysis
 - 4.1.1 North America Carbon Nanotubes Market: An Overview
 - 4.1.2 North America Carbon Nanotubes Market by Value
 - 4.1.3 North America Carbon Nanotubes Market by Region (The US, Canada and Mexico)
 - 4.1.4 The US Carbon Nanotubes Market by Value
 - 4.1.5 Canada Carbon Nanotubes Market by Value
 - 4.1.6 Mexico Carbon Nanotubes Market by Value
- 4.2 Europe Carbon Nanotubes Market: An Analysis
 - 4.2.1 Europe Carbon Nanotubes Market: An Overview
 - 4.2.2 Europe Carbon Nanotubes Market by Value
 - 4.2.3 Europe Carbon Nanotubes Market by Region (Germany, UK, France, Italy, Spain and Rest of Europe)
 - 4.2.4 Germany Carbon Nanotubes Market by Value
 - 4.2.5 UK Carbon Nanotubes Market by Value
 - 4.2.6 France Carbon Nanotubes Market by Value
 - 4.2.7 Italy Carbon Nanotubes Market by Value
 - 4.2.8 Spain Carbon Nanotubes Market by Value
 - 4.2.9 Rest of Europe Carbon Nanotubes Market by Value
- 4.3 Asia Pacific Carbon Nanotubes Market: An Analysis
 - 4.3.1 Asia Pacific Carbon Nanotubes Market: An Overview
 - 4.3.2 Asia Pacific Carbon Nanotubes Market by Value
 - 4.3.3 Asia Pacific Carbon Nanotubes Market by Region (China, India, Japan, South Korea and Rest of Asia Pacific)
 - 4.3.4 China Carbon Nanotubes Market by Value
 - 4.3.5 Japan Carbon Nanotubes Market by Value

- 4.3.6 India Carbon Nanotubes Market by Value
- 4.3.7 South Korea Carbon Nanotubes Market by Value
- 4.3.8 Rest of Asia Pacific Carbon Nanotubes Market by Value
- 4.4 Rest of the World Carbon Nanotubes Market: An Analysis
 - 4.4.1 Rest of the World Carbon Nanotubes Market: An Overview
 - 4.4.2 Rest of the World Carbon Nanotubes Market by Value

5. IMPACT OF COVID-19

- 5.1 Impact of COVID-19 on Carbon Nanotubes Market
- 5.2 Post COVID-19 Impact on Carbon Nanotubes Market

6. MARKET DYNAMICS

- 6.1 Growth Drivers
 - 6.1.1 Rising Demand in Electrical, Electronics & Semiconductor Applications
 - 6.1.2 Increasing Application in Energy Storage
 - 6.1.3 Increasing Demand of CNTs in Renewable Energy and Water Treatment
 - 6.1.4 Growing Demand of CNTs in Other End User Industries
- 6.2 Challenges
 - 6.2.1 Growing Environmental and Safety Concerns
 - 6.2.2 High Production and Manufacturing Cost
- 6.3 Market Trends
 - 6.3.1 Increasing Integration of AI and ML
 - 6.3.2 Rising Adoption of Electric Vehicles (EVs)
 - 6.3.3 Emergence of Functionalized Carbon Nanotubes
 - 6.3.4 Increasing Integration of Nanotechnology and Biotechnology

7. COMPETITIVE LANDSCAPE

- 7.1 Global Carbon Nanotubes Players by Market Share

8. COMPANY PROFILES

- 8.1 Arkema Group (Arkema S.A.)
 - 8.1.1 Business Overview
 - 8.1.2 Operating Segments
 - 8.1.3 Business Strategy
- 8.2 Resonac Holdings Corporation (Showa Denko K.K.)

- 8.2.1 Business Overview
- 8.2.2 Operating Segments
- 8.2.3 Business Strategy
- 8.3 LG Chem Ltd.
 - 8.3.1 Business Overview
 - 8.3.2 Operating Segments
 - 8.3.3 Business Strategies
- 8.4 Cabot Corporation
 - 8.4.1 Business Overview
 - 8.4.2 Operating Segments
 - 8.4.3 Business Strategies
- 8.5 Klean Industries Inc.
 - 8.5.1 Business Overview
 - 8.5.2 Business Strategies
- 8.6 CHASM Advanced Materials, Inc.
 - 8.6.1 Business Overview
 - 8.6.2 Business Strategies
- 8.7 OCSiAl
 - 8.7.1 Business Overview
 - 8.7.2 Business Strategies
- 8.8 Raymor Industries Inc.
 - 8.8.1 Business Overview
- 8.9 Chengdu Organic Chemicals Co. Ltd. (Timesnano)
 - 8.9.1 Business Overview
- 8.10 Cheap Tubes Inc.
 - 8.10.1 Business Overview
- 8.11 Hyperion Catalysis International, Inc.
 - 8.11.1 Business Overview
- 8.12 Jiangsu Cnano Technology Co., Ltd
 - 8.12.1 Business Overview
- 8.13 Nanocyl SA
 - 8.13.1 Business Overview

List Of Figures

LIST OF FIGURES

Figure 1: Benefits of Carbon Nanotubes

Figure 2: Properties of Carbon Nanotubes

Figure 3: Carbon Nanotubes Segmentation

Figure 4: Global Carbon Nanotubes Market by Value; 2018-2022 (US\$ Billion)

Figure 5: Global Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)

Figure 6: Global Carbon Nanotubes Market by Type; 2022 (Percentage, %)

Figure 7: Global Carbon Nanotubes Market by Technology; 2022 (Percentage, %)

Figure 8: Global Carbon Nanotubes Market by Application; 2022 (Percentage, %)

Figure 9: Global Carbon Nanotubes Market by Region; 2022 (Percentage, %)

Figure 10: Global Single Walled Carbon Nanotubes Market by Value; 2018-2022 (US\$ Billion)

Figure 11: Global Single Walled Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)

Figure 12: Global Multi Walled Carbon Nanotubes Market by Value; 2018-2022 (US\$ Billion)

Figure 13: Global Multi Walled Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)

Figure 14: Global Arc Discharge Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)

Figure 15: Global Arc Discharge Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)

Figure 16: Global Laser Ablation Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)

Figure 17: Global Laser Ablation Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)

Figure 18: Global Chemical Vapor Deposition Carbon Nanotubes Market by Value; 2018-2022 (US\$ Billion)

Figure 19: Global Chemical Vapor Deposition Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)

Figure 20: Global Catalytic Chemical Vapor Deposition Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)

Figure 21: Global Catalytic Chemical Vapor Deposition Carbon Nanotubes Market by Value; 2023-2028 (US\$ Million)

Figure 22: Global High Pressure Carbon Monoxide Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)

Figure 23: Global High Pressure Carbon Monoxide Carbon Nanotubes Market by Value; 2023-2028 (US\$ Million)

Figure 24: Global CoMoCAT Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)

Figure 25: Global CoMoCAT Carbon Nanotubes Market by Value; 2023-2028 (US\$ Million)

Figure 26: Global Floating Catalyst Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)

Figure 27: Global Floating Catalyst Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)

Figure 28: Global Others Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)

Figure 29: Global Others Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)

Figure 30: Global Semiconductor and Electronics Carbon Nanotubes Market by Value; 2018-2022 (US\$ Billion)

Figure 31: Global Semiconductor and Electronics Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)

Figure 32: Global Energy and Storage Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)

Figure 33: Global Energy and Storage Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)

Figure 34: Global Structural Composites Carbon Nanotubes Market by Value; 2018-2022 (US\$ Billion)

Figure 35: Global Structural Composites Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)

Figure 36: Global Chemical and Materials Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)

Figure 37: Global Chemical and Materials Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)

Figure 38: Global Medical and Pharmacy Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)

Figure 39: Global Medical and Pharmacy Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)

Figure 40: Global Others Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)

Figure 41: Global Others Carbon Nanotubes Market by Value; 2023-2028 (US\$ Million)

Figure 42: North America Carbon Nanotubes Market by Value; 2018-2022 (US\$ Billion)

Figure 43: North America Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)

Figure 44: North America Carbon Nanotubes Market by Region; 2022 (Percentage, %)

Figure 45: The US Carbon Nanotubes Market by Value; 2018-2022 (US\$ Billion)

Figure 46: The US Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)

- Figure 47: Canada Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)
- Figure 48: Canada Carbon Nanotubes Market by Value; 2023-2028 (US\$ Million)
- Figure 49: Mexico Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)
- Figure 50: Mexico Carbon Nanotubes Market by Value; 2023-2028 (US\$ Million)
- Figure 51: Europe Carbon Nanotubes Market by Value; 2018-2022 (US\$ Billion)
- Figure 52: Europe Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)
- Figure 53: Europe Carbon Nanotubes Market by Region; 2022 (Percentage, %)
- Figure 54: Germany Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)
- Figure 55: Germany Carbon Nanotubes Market by Value; 2023-2028 (US\$ Million)
- Figure 56: UK Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)
- Figure 57: UK Carbon Nanotubes Market by Value; 2023-2028 (US\$ Million)
- Figure 58: France Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)
- Figure 59: France Carbon Nanotubes Market by Value; 2023-2028 (US\$ Million)
- Figure 60: Italy Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)
- Figure 61: Italy Carbon Nanotubes Market by Value; 2023-2028 (US\$ Million)
- Figure 62: Spain Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)
- Figure 63: Spain Carbon Nanotubes Market by Value; 2023-2028 (US\$ Million)
- Figure 64: Rest of Europe Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)
- Figure 65: Rest of Europe Carbon Nanotubes Market by Value; 2023-2028 (US\$ Million)
- Figure 66: Asia Pacific Carbon Nanotubes Market by Value; 2018-2022 (US\$ Billion)
- Figure 67: Asia Pacific Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)
- Figure 68: Asia Pacific Carbon Nanotubes Market by Region; 2022 (Percentage, %)
- Figure 69: China Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)
- Figure 70: China Carbon Nanotubes Market by Value; 2023-2028 (US\$ Million)
- Figure 71: Japan Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)
- Figure 72: Japan Carbon Nanotubes Market by Value; 2023-2028 (US\$ Million)
- Figure 73: India Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)
- Figure 74: India Carbon Nanotubes Market by Value; 2023-2028 (US\$ Million)
- Figure 75: South Korea Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)
- Figure 76: South Korea Carbon Nanotubes Market by Value; 2023-2028 (US\$ Million)
- Figure 77: Rest of Asia Pacific Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)
- Figure 78: Rest of Asia Pacific Carbon Nanotubes Market by Value; 2023-2028 (US\$ Million)
- Figure 79: Rest of the World Carbon Nanotubes Market by Value; 2018-2022 (US\$ Million)
- Figure 80: Rest of the World Carbon Nanotubes Market by Value; 2023-2028 (US\$ Billion)
- Figure 81: Global Semiconductor Market Size; 2019-2023 (US\$ Billion)

- Figure 82: Global Consumer Electronics Revenue; 2021-2027 (US\$ Trillion)
- Figure 83: Global Battery Energy Storage Market Value; 2021–2026 (US\$ Billion)
- Figure 84: Global Artificial Intelligence Market Size; 2021–2025 (US\$ Billion)
- Figure 85: Global EV Cars Stock; 2018–2022 (Million)
- Figure 86: Global Carbon Nanotubes Players by Market Share; 2022 (Percentage, %)
- Figure 87: Arkema Sales by Segment; 2022 (Percentage, %)
- Figure 88: Resonac Holdings Corporation (Showa Denko K.K.) Sales by Reportable Segment; 2022 (Percentage, %)
- Figure 89: LG Chem Ltd. Revenue by Segments; 2022 (Percentage, %)
- Figure 90: Cabot Corporation Revenue by Reportable Segments; 2022 (Percentage, %)

I would like to order

Product name: Global Carbon Nanotubes (CNT) Market: Analysis By Technology (Arc Discharge, Laser Ablation, CVD, Catalytic CVD, High Pressure Carbon Monoxide, CoMoCAT, Floating Catalyst, and Others), By Type (Single Walled and Multi Walled), By Application (Semiconductor & Electronics, Energy & Storage, Structural Composites, Chemical & Materials, Medical & Pharmacy, and Others), By Region Size and Trends with Impact of COVID-19 and Forecast up to 2028

Product link: <https://marketpublishers.com/r/G3C468EE1F66EN.html>

Price: US\$ 2,250.00 (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/G3C468EE1F66EN.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