

Carbon Nanotubes (CNT) Market by Type (Single Walled & Multi Walled), End-use Industry (Electronics & Semiconductors, Chemical Materials & Polymers, Structural Composites, Energy & Storage, Medical), Method, and Region - Global Forecast to 2026

<https://marketpublishers.com/r/C09EA046147EN.html>

Date: May 2021

Pages: 232

Price: US\$ 4,950.00 (Single User License)

ID: C09EA046147EN

Abstracts

The carbon nanotubes market is projected to grow from USD 876 million in 2021 to USD 1,714 million by 2026, at a CAGR of 14.4% between 2021 and 2026. The demand and use of CNTs are rapidly increasing in medical, aerospace & defense, coatings, and other applications, especially in the APAC region.

The driving factor for the CNTs market is the intrinsic mechanical properties of CNTs, which make them the ultimate nanomaterial. CNTs have a unique combination of stiffness, strength, and tenacity compared to other fiber materials that usually lack one or more of these properties. The restraining factors of the market are very high prices, limited knowledge, and easy availability of substitutes. The growth of the CNTs market is affected by its cost structure, processing difficulties, and the availability of substitutes, such as silicon carbide nanotubes (SiCNTs). CNT manufacturing methods, such as arc-discharge and laser ablation methods, are expensive, hazardous to the environment, and uneconomical for large-scale production.

“Energy & Storage is projected to be the largest end-use industry of carbon nanotubes market.”

Energy & Storage is the largest end-use industry segment, in terms of both volume, in 2020. Energy & storage segment is sub segmented into lithium-ion batteries, fuel cells, solar PV cells, hydrogen storage, electrochemical supercapacitors, propellants, and others. The lithium-ion batteries sub-segment is expected to account for the larger

share of the CNTs market in the energy & storage segment during the forecast period. The demand for lithium-ion batteries is rapidly increasing in vehicles that require lightweight and high-energy density solutions. These batteries provide the highest energy density per weight and are used in cellular phones, notebook computers, and hybrid automobiles.

“Single-walled carbon nanotubes is the fastest-growing resin segment of the carbon nanotubes market.”

Single-walled carbon nanotubes (SWCNT) is the fastest-growing resin segment, in terms of volume, between 2020 and 2025. SWCNT are used in electrical conductive transparent electrodes, conductive heating films, conductive nano inks, nanodevices, displays, chemical sensors, super batteries, supercapacitors, energy storage, solar cells, and thermal interface material among other applications. The high demand from various applications, including drug delivery, field emission, interconnects, sensors, and biomedical applications, is also driving the growth of the SWCNT market.

“APAC is the fastest market for carbon nanotubes during the forecast period.”

APAC is projected to be the largest and the fastest-growing market for carbon nanotubes during the forecast period. Easy availability of raw materials at competitive prices and cheap labor force have made APAC the biggest market for CNTs. Global manufacturers are increasingly setting up their production plants in the region in a bid to ramp up production and increase sales. The major end-use industries of CNTs are electronics & semiconductor, energy & storage, structural composites application, chemical materials & polymers, medical, and others.

Extensive primary interviews have been conducted, and information has been gathered from secondary research to determine and verify the market size of several segments and sub-segments.

Breakdown of Primary Interviews:

By Company Type: Tier 3 – 46%, Tier 2 – 36%, and Tier 1 – 18%

By Designation: D Level – 27%, C Level – 18%, and Others – 55%

By Region: APAC – 55%, North America – 18%, Europe – 9%, South America – 9%, and Middle East & Africa – 9%

The key companies profiled in this report are LG Chemical Limited (South Korea), Cabot Corporation (US), Showa Denko K.K. (Japan), Jiangsu Cnano Technology Co., Ltd. (China), and Chengdu Organic Chemicals Co. Ltd. (China).

Research Coverage:

The carbon nanotubes market has been segmented based on type (single-walled carbon nanotubes and multi-walled carbon nanotubes), method (chemical vapor deposition, catalytic chemical vapor deposition, high-pressure carbon monoxide reaction, and others), end-use industry (electronics & semiconductor, energy & storage, chemical material & polymers, medical, structural composites application, others), and region (APAC, Europe, North America, South America, and Middle East & Africa).

Reasons to Buy the Report

From an insight perspective, this research report focuses on various levels of analyses — industry analysis (industry trends), market share analysis of top players, and company profiles, which together comprise and discuss the basic views on the competitive landscape; emerging and high-growth segments of the market; high growth regions; and market drivers, restraints, opportunities, and challenges.

The report provides insights on the following pointers:

Market Penetration: Comprehensive information on carbon nanotubes offered by top players in the market

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product launches in the market

Market Development: Comprehensive information about lucrative emerging markets – the report analyzes the market for carbon nanotubes across regions

Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the market

Competitive Assessment: In-depth assessment of market shares, strategies, products, and manufacturing capabilities of leading players in the market.

Contents

1 INTRODUCTION

- 1.1 OBJECTIVES OF THE STUDY
- 1.2 MARKET DEFINITION
- 1.3 MARKET SCOPE
 - FIGURE 1 CARBON NANOTUBES MARKET SEGMENTATION
 - TABLE 1 INCLUSIONS AND EXCLUSIONS
 - 1.3.1 REGIONS COVERED
 - 1.3.2 YEARS CONSIDERED FOR THE STUDY
- 1.4 CURRENCY
- 1.5 UNIT CONSIDERED
- 1.6 STAKEHOLDERS
- 1.7 SUMMARY OF CHANGES

2 RESEARCH METHODOLOGY

- 2.1 RESEARCH DATA
 - FIGURE 2 CARBON NANOTUBES MARKET: RESEARCH DESIGN
 - 2.1.1 SECONDARY DATA
 - 2.1.1.1 Key data from secondary sources
 - 2.1.2 PRIMARY DATA
 - 2.1.2.1 Key data from primary sources
 - 2.1.2.2 Key industry insights
 - 2.1.2.3 Breakdown of primary interviews
 - 2.1.2.4 Primary data sources
- 2.2 MARKET SIZE ESTIMATION
 - 2.2.1 BOTTOM-UP APPROACH
 - FIGURE 3 MARKET SIZE ESTIMATION: BOTTOM-UP APPROACH
 - 2.2.2 TOP-DOWN APPROACH
 - FIGURE 4 MARKET SIZE ESTIMATION: TOP-DOWN APPROACH
- 2.3 MARKET FORECAST GROWTH FACTORS
- 2.4 DATA TRIANGULATION
 - FIGURE 5 CNTS MARKET: DATA TRIANGULATION
- 2.5 ASSUMPTIONS
- 2.6 RISK ANALYSIS ASSESSMENT
- 2.7 LIMITATIONS

3 EXECUTIVE SUMMARY

TABLE 2 CARBON NANOTUBES MARKET SNAPSHOT, 2021 VS. 2026

FIGURE 6 MULTI-WALLED CARBON NANOTUBES SEGMENT DOMINATED THE MARKET IN 2020

FIGURE 7 STRUCTURAL COMPOSITES APPLICATION END-USE INDUSTRY LED MARKET IN 2020

FIGURE 8 APAC TO BE THE FASTEST-GROWING CARBON NANOTUBES MARKET

4 PREMIUM INSIGHTS

4.1 ATTRACTIVE OPPORTUNITIES IN THE CARBON NANOTUBES MARKET

FIGURE 9 CARBON NANOTUBES MARKET TO WITNESS HIGH GROWTH BETWEEN

2021 AND 2026

4.2 CARBON NANOTUBES MARKET, BY END-USE INDUSTRY

FIGURE 10 ENERGY & STORAGE TO BE THE LARGEST END-USE INDUSTRY

4.3 APAC: CARBON NANOTUBES MARKET, BY END-USE INDUSTRY AND COUNTRY, 2020

FIGURE 11 CHINA AND ENERGY & STORAGE SEGMENTS ACCOUNTED FOR LARGEST SHARES

4.4 CNTS MARKET: DEVELOPED VS. DEVELOPING COUNTRIES

FIGURE 12 CNTS MARKET TO WITNESS HIGHER GROWTH IN DEVELOPING COUNTRIES

4.5 CARBON NANOTUBES MARKET: GROWING DEMAND FROM APAC

FIGURE 13 CHINA TO REGISTER THE HIGHEST CAGR IN APAC MARKET

4.6 CARBON NANOTUBES MARKET: BY MAJOR COUNTRIES

FIGURE 14 CHINA TO EMERGE AS A LUCRATIVE MARKET

5 MARKET OVERVIEW

5.1 INTRODUCTION

5.2 MARKET DYNAMICS

5.2.1 DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES, IN THE CARBON NANOTUBES MARKET

5.2.2 DRIVERS

5.2.2.1 Emerging demand from the APAC region

5.2.2.2 High growth of end-use industries, such as electrical & electronics and automotive

TABLE 3 MECHANICAL PROPERTIES: CARBON NANOTUBES VS. OTHER MATERIALS

5.2.2.3 Increasing demand for lightweight and low carbon- emitting vehicles

5.2.2.4 Technological advancements and decreasing production cost

5.2.3 RESTRAINTS

5.2.3.1 Environmental concern and health & safety issues

5.2.4 OPPORTUNITIES

5.2.4.1 Growth in emerging applications

TABLE 4 EMERGING APPLICATIONS OF CARBON NANOTUBES

5.2.5 CHALLENGES

5.2.5.1 Maintaining quality and reducing processing cost

5.2.5.2 Stringent and time-consuming regulatory policies

5.3 PORTER'S FIVE FORCES ANALYSIS

FIGURE 15 CARBON NANOTUBES MARKET: PORTER'S FIVE FORCES ANALYSIS

TABLE 5 PORTER'S FIVE FORCES ANALYSIS

5.3.1 INTENSITY OF COMPETITIVE RIVALRY

5.3.2 BARGAINING POWER OF BUYERS

5.3.3 BARGAINING POWER OF SUPPLIERS

5.3.4 THREAT OF SUBSTITUTES

5.3.5 THREAT OF NEW ENTRANTS

5.4 MACROECONOMIC OVERVIEW AND KEY TRENDS

5.4.1 INTRODUCTION

5.4.2 TRENDS AND FORECAST OF GDP

TABLE 6 GDP PERCENTAGE CHANGE OF KEY COUNTRIES, 2018–2025

5.5 COVID-19 IMPACT

FIGURE 16 RANGE SCENERIOS: CARBON NANOTUBES MARKET

5.6 COVID-19 ECONOMIC ASSESSMENT

FIGURE 17 LATEST WORLD ECONOMIC OUTLOOK GROWTH PROJECTIONS

5.6.1 COVID-19 ECONOMIC IMPACT – SCENARIO ASSESSMENT

FIGURE 18 FACTORS IMPACTING ECONOMY OF SELECT G20 COUNTRIES IN 2020

FIGURE 19 SCENARIO-BASED ANALYSIS OF IMPACT OF COVID-19 ON BUSINESSES

5.7 AVERAGE SELLING PRICE TREND

FIGURE 20 AVERAGE PRICE COMPETITIVENESS IN CARBON NANOTUBES MARKET, BY REGION

5.8 PATENT ANALYSIS

5.8.1 METHODOLOGY

5.8.2 PUBLICATION TRENDS

FIGURE 21 NUMBER OF PATENTS PUBLISHED, 2016-2021

5.8.3 TOP JURISDICTION

FIGURE 22 PATENTS PUBLISHED BY JURISDICTION, 2016-2021

5.8.4 TOP APPLICANTS

FIGURE 23 PATENTS PUBLISHED BY MAJOR PLAYERS, 2016-2021

TABLE 7 TOP 20 OWNERS (US), 2016-2021

5.9 CASE STUDY ANALYSIS

5.10 REGULATIONS

5.10.1 TOXIC SUBSTANCES CONTROL ACT (TSCA) (UNITED STATES), ACT 2008:

5.10.2 REACH (REGISTRATION, EVALUATION, AUTHORISATION AND RESTRICTION OF CHEMICALS) ACT 2008:

5.11 VALUE CHAIN ANALYSIS

FIGURE 24 CARBON NANOTUBES: VALUE CHAIN ANALYSIS

5.12 TECHNOLOGY ANALYSIS

5.13 CARBON NANOTUBES ECOSYSTEM

TABLE 8 CARBON NANOTUBES ECOSYSTEM

5.14 IMPACT OF TRENDS AND TECHNOLOGY DISRUPTION ON MANUFACTURERS: YC AND YCC SHIFT

FIGURE 25 YC AND YCC SHIFT IN THE INDUSTRY

5.14.1 AUTOMOTIVE & TRANSPORTATION

5.14.1.1 Electric vehicles

5.14.1.2 Shared mobility

5.14.1.3 Types of batteries for electric power vehicles

5.14.2 AEROSPACE

5.14.2.1 Ultralight and light aircraft

5.14.2.2 Unmanned Aircraft Systems (UAS) or drones

5.14.3 HEALTHCARE

5.14.3.1 Wearable medical devices

5.14.3.2 Microfluidics-based POC and LOC diagnostic devices for laboratory testing

5.14.4 ELECTRONICS

5.14.4.1 Digitalization

5.14.4.2 Artificial intelligence

5.14.4.3 Augmented reality

5.14.4.4 Export import statistics, 2020

FIGURE 26 INDIA CARBON NANOTUBES EXPORT DESTINATIONS, 2020

FIGURE 27 INDIA CARBON NANOTUBES IMPORT DESTINATIONS, 2020

6 CARBON NANOTUBES MARKET, BY TYPE

6.1 INTRODUCTION

TABLE 9 CARBON NANOTUBES MARKET SIZE, BY TYPE, 2017–2020 (USD MILLION)

TABLE 10 CARBON NANOTUBES MARKET SIZE, BY TYPE, 2021–2026 (USD MILLION)

TABLE 11 CARBON NANOTUBES MARKET SIZE, BY TYPE, 2017–2020 (TON)

TABLE 12 CARBON NANOTUBES MARKET SIZE, BY TYPE, 2021–2026 (TON)

6.2 SINGLE-WALLED CARBON NANOTUBES (SWCNT)

6.2.1 INCREASING DEMAND FROM EMERGING APPLICATIONS DRIVES THE SEGMENT IN APAC

TABLE 13 SINGLE-WALLED CARBON NANOTUBES MARKET SIZE, BY REGION, 2017–2020 (USD MILLION)

TABLE 14 SINGLE-WALLED CARBON NANOTUBES MARKET SIZE, BY REGION, 2021–2026 (USD MILLION)

TABLE 15 SINGLE-WALLED CARBON NANOTUBES MARKET SIZE, BY REGION, 2017–2020 (TON)

TABLE 16 SINGLE-WALLED CARBON NANOTUBES MARKET SIZE, BY REGION, 2021–2026 (TON)

6.3 MULTI-WALLED CARBON NANOTUBES (MWCNT)

6.3.1 RISING DEMAND IN MEDICAL & HEALTHCARE APPLICATION TO BOOST THE MARKET GROWTH

TABLE 17 MULTI-WALLED CARBON NANOTUBES MARKET SIZE, BY REGION, 2017–2020 (USD MILLION)

TABLE 18 MULTI-WALLED CARBON NANOTUBES MARKET SIZE, BY REGION, 2021–2026 (USD MILLION)

TABLE 19 MULTI-WALLED CARBON NANOTUBES MARKET SIZE, BY REGION, 2017–2020 (TON)

TABLE 20 MULTI-WALLED CARBON NANOTUBES MARKET SIZE, BY REGION, 2021–2026 (TON)

7 CARBON NANOTUBES MARKET, BY METHOD

7.1 INTRODUCTION

7.1.1 PHYSICAL PROCESS

7.1.2 CHEMICAL PROCESS

7.1.3 MISCELLANEOUS PROCESSES

7.2 CHEMICAL VAPOR DEPOSITION

7.2.1 CHEMICAL VAPOR DEPOSITION IS LARGEST METHOD USED FOR MANUFACTURING CARBON NANOTUBES

7.3 CATALYTIC CHEMICAL VAPOR DEPOSITION (CCVD)

7.3.1 FLEXIBILITY AND EFFICIENCY OF CATALYTIC CHEMICAL VAPOR DEPOSITION DRIVES THE MARKET

7.4 HIGH-PRESSURE CARBON MONOXIDE REACTION

7.4.1 SINGLE-WALLED CARBON NANOTUBES ARE MORE SUITABLE IN THIS METHOD WITH HIGH-PRESSURE CARBON MONOXIDE REACTION

7.5 OTHERS

7.5.1 ARC DISCHARGE AND LASER ABLATION

7.5.2 FLAME SYNTHESIS

7.5.3 ELECTROLYSIS

7.5.4 COMOCAT

8 CARBON NANOTUBES MARKET, BY END-USE INDUSTRY

8.1 INTRODUCTION

TABLE 21 CARBON NANOTUBES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD MILLION)

TABLE 22 CARBON NANOTUBES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD MILLION)

TABLE 23 CARBON NANOTUBES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (TON)

TABLE 24 CARBON NANOTUBES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (TON)

8.2 ELECTRONICS & SEMICONDUCTORS

8.2.1 RECENT SURGE IN THE GROWTH OF THE ELECTRONICS INDUSTRY HAS LED TO INCREASED USE OF CARBON NANOTUBES, GLOBALLY

TABLE 25 CARBON NANOTUBES MARKET SIZE IN ELECTRONICS & SEMICONDUCTORS, BY REGION, 2017–2020 (USD MILLION)

TABLE 26 CARBON NANOTUBES MARKET SIZE IN ELECTRONICS & SEMICONDUCTORS, BY REGION, 2021–2026 (USD MILLION)

TABLE 27 CARBON NANOTUBES MARKET SIZE IN ELECTRONICS & SEMICONDUCTORS, BY REGION, 2017–2020 (TON)

TABLE 28 CARBON NANOTUBES MARKET SIZE IN ELECTRONICS & SEMICONDUCTORS, BY REGION, 2021–2026 (TON)

TABLE 29 ELECTRONICS & SEMICONDUCTORS: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2017–2020 (USD MILLION)

TABLE 30 ELECTRONICS & SEMICONDUCTORS: CARBON NANOTUBES MARKET

SIZE, BY APPLICATION, 2021–2026 (USD MILLION)

TABLE 31 ELECTRONICS & SEMICONDUCTORS: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2017–2020 (TON)

TABLE 32 ELECTRONICS & SEMICONDUCTORS: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2021–2026 (TON)

8.2.2 INTEGRATED CIRCUITS (ICS)

8.2.3 FLEXIBLE DISPLAY

8.2.4 SUPERCONDUCTORS

8.2.5 TRANSISTORS

8.2.6 INDUSTRIAL SENSORS

8.2.7 OTHERS

8.3 ENERGY & STORAGE

8.3.1 LITHIUM-ION BATTERIES TO ACCOUNT FOR A MAJOR SHARE

TABLE 33 CARBON NANOTUBES MARKET SIZE IN ENERGY & STORAGE, BY REGION, 2017–2020 (USD MILLION)

TABLE 34 CARBON NANOTUBES MARKET SIZE IN ENERGY & STORAGE, BY REGION, 2021–2026 (USD MILLION)

TABLE 35 CARBON NANOTUBES MARKET SIZE IN ENERGY & STORAGE, BY REGION, 2017–2020 (TON)

TABLE 36 CARBON NANOTUBES MARKET SIZE IN ENERGY & STORAGE, BY REGION, 2021–2026 (TON)

TABLE 37 ENERGY & STORAGE: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2017–2020 (USD MILLION)

TABLE 38 ENERGY & STORAGE: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2021–2026 (USD MILLION)

TABLE 39 ENERGY & STORAGE: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2017–2020 (TON)

TABLE 40 ENERGY & STORAGE: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2021–2026 (TON)

8.3.2 LITHIUM-ION BATTERIES

8.3.3 FUEL CELLS

8.3.4 SOLAR PV CELLS

8.3.5 HYDROGEN STORAGE

8.3.6 ELECTROCHEMICAL SUPERCAPACITORS

8.3.7 PROPELLANTS

8.3.8 OTHERS

8.4 CHEMICAL MATERIAL & POLYMERS

8.4.1 CONTINUING INDUSTRIALIZATION IN APAC HAS LED TO THE GROWTH OF THE CHEMICALS & POLYMERS INDUSTRY

TABLE 41 CARBON NANOTUBES MARKET SIZE IN CHEMICAL MATERIAL & POLYMERS, BY REGION, 2017–2020 (USD MILLION)

TABLE 42 CARBON NANOTUBES MARKET SIZE IN CHEMICAL MATERIAL & POLYMERS, BY REGION, 2021–2026 (USD MILLION)

TABLE 43 CARBON NANOTUBES MARKET SIZE IN CHEMICAL MATERIAL & POLYMERS, BY REGION, 2017–2020 (TON)

TABLE 44 CARBON NANOTUBES MARKET SIZE IN CHEMICAL MATERIAL & POLYMERS, BY REGION, 2021–2026 (TON)

TABLE 45 CHEMICAL MATERIAL & POLYMERS: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2017–2020 (USD MILLION)

TABLE 46 CHEMICAL MATERIAL & POLYMERS: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2019–2026 (USD MILLION)

TABLE 47 CHEMICAL MATERIAL & POLYMERS: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2017–2020 (TON)

TABLE 48 CHEMICAL MATERIAL & POLYMERS: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2021–2026 (TON)

8.4.2 COATINGS, ADHESIVE & SEALANTS

8.4.3 WATER FILTRATION

8.4.4 CATALYSTS

8.4.5 OTHERS

8.5 MEDICAL

8.5.1 USE OF CARBON NANOTUBES WITH BIOLOGICAL SYSTEMS CAN BRING ABOUT ADVANCEMENTS IN MEDICAL SCIENCE

TABLE 49 CARBON NANOTUBES MARKET SIZE IN MEDICAL, BY REGION, 2017–2020 (USD MILLION)

TABLE 50 CARBON NANOTUBES MARKET SIZE IN MEDICAL, BY REGION, 2021–2026 (USD MILLION)

TABLE 51 CARBON NANOTUBES MARKET SIZE IN MEDICAL, BY REGION, 2017–2020 (TON)

TABLE 52 CARBON NANOTUBES MARKET SIZE IN MEDICAL, BY REGION, 2021–2026 (TON)

TABLE 53 MEDICAL: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2017–2020 (USD MILLION)

TABLE 54 MEDICAL: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2021–2026 (USD MILLION)

TABLE 55 MEDICAL: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2017–2020 (TON)

TABLE 56 MEDICAL: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2021–2026 (TON)

8.5.2 TRANSDERMAL DRUG DELIVERY

8.5.3 CANCER TREATMENT

8.5.4 PROTEOMICS

8.5.5 OTHERS

8.6 STRUCTURAL COMPOSITES APPLICATIONS

TABLE 57 CARBON NANOTUBES MARKET SIZE IN STRUCTURAL COMPOSITES APPLICATIONS, BY REGION, 2017–2020 (USD MILLION)

TABLE 58 CARBON NANOTUBES MARKET SIZE IN STRUCTURAL COMPOSITES APPLICATION, BY REGION, 2021–2026 (USD MILLION)

TABLE 59 CARBON NANOTUBES MARKET SIZE IN STRUCTURAL COMPOSITES APPLICATIONS, BY REGION, 2017–2020 (TON)

TABLE 60 CARBON NANOTUBES MARKET SIZE IN STRUCTURAL COMPOSITES APPLICATIONS, BY REGION, 2021–2026 (TON)

TABLE 61 STRUCTURAL COMPOSITES APPLICATIONS: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2017–2020 (USD MILLION)

TABLE 62 STRUCTURAL COMPOSITES APPLICATIONS: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2021–2026 (USD MILLION)

TABLE 63 STRUCTURAL COMPOSITES APPLICATIONS: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2017–2020 (TON)

TABLE 64 STRUCTURAL COMPOSITES APPLICATIONS: CARBON NANOTUBES MARKET SIZE, BY APPLICATION, 2021–2026 (TON)

8.6.1 DEFENSE

8.6.2 SPORTING GOODS

8.6.3 WIND TURBINE BLADES

8.6.4 LIGHT VEHICLES/AUTOMOTIVE

8.6.5 CONSTRUCTION & INFRASTRUCTURE

8.6.6 AEROSPACE & OTHERS

8.7 OTHERS

9 CARBON NANOTUBES MARKET, BY REGION

9.1 INTRODUCTION

TABLE 65 CARBON NANOTUBES MARKET SIZE, BY REGION, 2017–2020 (USD MILLION)

TABLE 66 CARBON NANOTUBES MARKET SIZE, BY REGION, 2021–2026 (USD MILLION)

TABLE 67 CARBON NANOTUBES MARKET SIZE, BY REGION, 2017–2020 (TONS)

TABLE 68 CARBON NANOTUBES MARKET SIZE, BY REGION, 2021–2026 (TONS)

9.2 APAC

9.2.1 IMPACT OF COVID-19 ON APAC

FIGURE 28 APAC: CARBON NANOTUBES MARKET SNAPSHOT

TABLE 69 APAC: CARBON NANOTUBES MARKET SIZE, BY COUNTRY, 2017–2020 (USD MILLION)

TABLE 70 APAC: CARBON NANOTUBES MARKET SIZE, BY COUNTRY, 2021–2026 (USD MILLION)

TABLE 71 APAC: CARBON NANOTUBES MARKET SIZE, BY COUNTRY, 2017–2020 (TONS)

TABLE 72 APAC: CARBON NANOTUBES MARKET SIZE, BY COUNTRY, 2021–2026 (TONS)

TABLE 73 APAC: CARBON NANOTUBES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD MILLION)

TABLE 74 APAC: CARBON NANOTUBES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD MILLION)

TABLE 75 APAC: CARBON NANOTUBES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (TONS)

TABLE 76 APAC: CARBON NANOTUBES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (TONS)

TABLE 77 APAC: CARBON NANOTUBES MARKET SIZE, BY TYPE, 2017–2020 (USD MILLION)

TABLE 78 APAC: CARBON NANOTUBES MARKET SIZE, BY TYPE, 2021–2026 (USD MILLION)

TABLE 79 APAC: CARBON NANOTUBES MARKET SIZE, BY TYPE, 2017–2020 (TONS)

TABLE 80 APAC: CARBON NANOTUBES MARKET SIZE, BY TYPE, 2021–2026 (TONS)

9.2.2 CHINA

9.2.2.1 Largest market for carbon nanotubes in APAC

TABLE 81 CHINA: CNTS MARKET SIZE, 2017–2020 (USD MILLION & TONS)

TABLE 82 CHINA: CARBON NANOTUBES MARKET SIZE, 2021–2026 (USD MILLION & TONS)

9.2.3 JAPAN

9.2.3.1 Automotive, aerospace, electronics & semiconductors industries driving market

TABLE 83 JAPAN: CARBON NANOTUBES MARKET SIZE, 2017–2020 (USD MILLION & TONS)

TABLE 84 JAPAN: CARBON NANOTUBES MARKET SIZE, 2021–2026 (USD MILLION & TONS)

9.2.4 SOUTH KOREA

9.2.4.1 Demand from automotive industry to boost market

TABLE 85 SOUTH KOREA: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 86 SOUTH KOREA: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.2.5 MALAYSIA

9.2.5.1 Medical device manufacturing offers growth opportunities for carbon nanotubes market

TABLE 87 MALAYSIA: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 88 MALAYSIA: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.2.6 INDIA

9.2.6.1 Use of nanotechnology in energy industry to boost carbon nanotubes market

TABLE 89 INDIA: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 90 INDIA: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.2.7 TAIWAN

9.2.7.1 High demand for carbon nanotubes from electrical & semiconductors industry

TABLE 91 TAIWAN: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 92 TAIWAN: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.2.8 VIETNAM

9.2.8.1 Growing construction industry to boost carbon nanotubes market

TABLE 93 VIETNAM: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 94 VIETNAM: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.2.9 INDONESIA

9.2.9.1 Rising demand from automotive industry

TABLE 95 INDONESIA: CARBON NANOTUBES MARKET SIZE, 2017–2020 (USD MILLION & TONS)

TABLE 96 INDONESIA: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.2.10 REST OF APAC

9.2.10.1 Emerging market with potential for growth

TABLE 97 REST OF APAC: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 98 REST OF APAC: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.3 NORTH AMERICA

9.3.1 IMPACT OF COVID-19 ON NORTH AMERICA

FIGURE 29 NORTH AMERICA: CARBON NANOTUBES MARKET SNAPSHOT

TABLE 99 NORTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY COUNTRY,
2017–2020 (USD MILLION)

TABLE 100 NORTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY
COUNTRY, 2021–2026 (USD MILLION)

TABLE 101 NORTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY
COUNTRY, 2017–2020 (TONS)

TABLE 102 NORTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY
COUNTRY, 2021–2026 (TONS)

TABLE 103 NORTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY END-USE
INDUSTRY, 2017–2020 (USD MILLION)

TABLE 104 NORTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY END-USE
INDUSTRY, 2021–2026 (USD MILLION)

TABLE 105 NORTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY END-USE
INDUSTRY, 2017–2020 (TONS)

TABLE 106 NORTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY END-USE
INDUSTRY, 2021–2026 (TONS)

TABLE 107 NORTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY TYPE,
2017–2020 (USD MILLION)

TABLE 108 NORTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY TYPE,
2021–2026 (USD MILLION)

TABLE 109 NORTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY TYPE,
2017–2020 (TONS)

TABLE 110 NORTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY TYPE,
2021–2026 (TONS)

9.3.2 US

9.3.2.1 Applications across sectors to drive market

TABLE 111 US: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 112 US: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.3.3 CANADA

9.3.3.1 Automotive industry expected to drive carbon nanotubes market

TABLE 113 CANADA: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 114 CANADA: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.3.4 MEXICO

9.3.4.1 Growing demand from transportation and automotive applications expected to drive carbon nanotubes market

TABLE 115 MEXICO: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 116 MEXICO: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.4 EUROPE

9.4.1 IMPACT OF COVID-19 ON EUROPE

FIGURE 30 EUROPE: CARBON NANOTUBES MARKET SNAPSHOT

TABLE 117 EUROPE: CARBON NANOTUBES MARKET SIZE, BY COUNTRY,
2017–2020 (USD MILLION)

TABLE 118 EUROPE: CARBON NANOTUBES MARKET SIZE, BY COUNTRY,
2021–2026 (USD MILLION)

TABLE 119 EUROPE: CARBON NANOTUBES MARKET SIZE, BY COUNTRY,
2017–2020 (TONS)

TABLE 120 EUROPE: CARBON NANOTUBES MARKET SIZE, BY COUNTRY,
2021–2026 (TONS)

TABLE 121 EUROPE: CARBON NANOTUBES MARKET SIZE, BY END-USE
INDUSTRY, 2017–2020 (USD MILLION)

TABLE 122 EUROPE: CARBON NANOTUBES MARKET SIZE, BY END-USE
INDUSTRY, 2021–2026 (USD MILLION)

TABLE 123 EUROPE: CARBON NANOTUBES MARKET SIZE, BY END-USE
INDUSTRY, 2017–2020 (TONS)

TABLE 124 EUROPE: CARBON NANOTUBES MARKET SIZE, BY END-USE
INDUSTRY, 2021–2026 (TONS)

TABLE 125 EUROPE: CARBON NANOTUBES MARKET SIZE, BY TYPE, 2017–2020
(USD MILLION)

TABLE 126 EUROPE: CARBON NANOTUBES MARKET SIZE, BY TYPE, 2021–2026
(USD MILLION)

TABLE 127 EUROPE: CARBON NANOTUBES MARKET SIZE, BY TYPE, 2017–2020
(TONS)

TABLE 128 EUROPE: CARBON NANOTUBES MARKET SIZE, BY TYPE, 2021–2026
(TONS)

9.4.2 GERMANY

9.4.2.1 Automotive industry expected to drive carbon nanotubes market

TABLE 129 GERMANY: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 130 GERMANY: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.4.3 FRANCE

9.4.3.1 Widespread use of carbon nanotubes in construction and automotive sectors

TABLE 131 FRANCE: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 132 FRANCE: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.4.4 UK

9.4.4.1 Building & construction and automotive industries expected to drive carbon nanotubes market

TABLE 133 UK: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 134 UK: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.4.5 NETHERLANDS

9.4.5.1 Electronics & semiconductors to boost carbon nanotubes market

TABLE 135 THE NETHERLANDS: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 136 THE NETHERLANDS: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION) & (TONS)

9.4.6 BELGIUM

9.4.6.1 Carbon nanotubes market rides on automotive industry

TABLE 137 BELGIUM: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 138 BELGIUM: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.4.7 RUSSIA

9.4.7.1 Automotive industry leads carbon nanotubes market

TABLE 139 RUSSIA: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 140 RUSSIA: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.4.8 TURKEY

9.4.8.1 Building & construction expected to shore up carbon nanotubes market

TABLE 141 TURKEY: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 142 TURKEY: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.4.9 POLAND

9.4.9.1 Growth in chemical manufacturing industry required to push carbon nanotubes market

TABLE 143 POLAND: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 144 POLAND: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.4.10 REST OF EUROPE

9.4.10.1 Steady demand for carbon nanotubes from automotive industry

TABLE 145 REST OF EUROPE: CARBON NANOTUBES MARKET SIZE, 2017–2020
(USD MILLION & TONS)

TABLE 146 REST OF EUROPE: CARBON NANOTUBES MARKET SIZE, 2021–2026
(USD MILLION & TONS)

9.5 SOUTH AMERICA

9.5.1 IMPACT OF COVID-19 ON SOUTH AMERICA

TABLE 147 SOUTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY COUNTRY, 2017–2020 (USD MILLION)

TABLE 148 SOUTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY COUNTRY, 2021–2026 (USD MILLION)

TABLE 149 SOUTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY COUNTRY, 2017–2020 (TONS)

TABLE 150 SOUTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY COUNTRY, 2021–2026 (TONS)

TABLE 151 SOUTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD MILLION)

TABLE 152 SOUTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD MILLION)

TABLE 153 SOUTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (TONS)

TABLE 154 SOUTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (TONS)

TABLE 155 SOUTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY TYPE, 2017–2020 (USD MILLION)

TABLE 156 SOUTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY TYPE, 2021–2026 (USD MILLION)

TABLE 157 SOUTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY TYPE, 2017–2020 (TONS)

TABLE 158 SOUTH AMERICA: CARBON NANOTUBES MARKET SIZE, BY TYPE, 2021–2026 (TONS)

9.5.2 BRAZIL

9.5.2.1 Automotive industry to drive market demand

TABLE 159 BRAZIL: CARBON NANOTUBES MARKET SIZE, 2017–2020 (USD MILLION & TONS)

TABLE 160 BRAZIL: CARBON NANOTUBES MARKET SIZE, 2021–2026 (USD MILLION & TONS)

9.5.3 ARGENTINA

9.5.3.1 Increase in vehicle production by global players drives carbon nanotubes market

TABLE 161 ARGENTINA: CARBON NANOTUBES MARKET SIZE, 2017–2020 (USD MILLION & TONS)

TABLE 162 ARGENTINA: CARBON NANOTUBES MARKET SIZE, 2021–2026 (USD MILLION & TONS)

9.5.4 REST OF SOUTH AMERICA

9.5.4.1 Growing consumption of carbon nanotubes due to rise in building & construction activities

TABLE 163 REST OF SOUTH AMERICA: CARBON NANOTUBES MARKET SIZE, 2017–2020 (USD MILLION & TONS)

TABLE 164 REST OF SOUTH AMERICA: CARBON NANOTUBES MARKET SIZE, 2021–2026 (USD MILLION & TONS)

9.6 MIDDLE EAST & AFRICA

9.6.1 COVID-19 IMPACT ON MIDDLE EAST & AFRICA

TABLE 165 MIDDLE EAST & AFRICA: CARBON NANOTUBES MARKET SIZE, BY COUNTRY, 2017–2020 (USD MILLION)

TABLE 166 MIDDLE EAST & AFRICA: CARBON NANOTUBES MARKET SIZE, BY COUNTRY, 2021–2026 (USD MILLION)

TABLE 167 MIDDLE EAST & AFRICA: CARBON NANOTUBES MARKET SIZE, BY COUNTRY, 2017–2020 (TONS)

TABLE 168 MIDDLE EAST & AFRICA: CARBON NANOTUBES MARKET SIZE, BY COUNTRY, 2021–2026 (TONS)

TABLE 169 MIDDLE EAST & AFRICA: CARBON NANOTUBES MARKET SIZE, BY END-USE INDUSTRY, 2017–2020 (USD MILLION)

TABLE 170 MIDDLE EAST & AFRICA: CARBON NANOTUBES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (USD MILLION)

TABLE 171 MIDDLE EAST & AFRICA: CARBON NANOTUBES MARKET SIZE, BY

END-USE INDUSTRY, 2017–2020 (TONS)

TABLE 172 MIDDLE EAST & AFRICA: CARBON NANOTUBES MARKET SIZE, BY END-USE INDUSTRY, 2021–2026 (TONS)

TABLE 173 MIDDLE EAST & AFRICA: CARBON NANOTUBES MARKET SIZE, BY TYPE, 2017–2020 (USD MILLION)

TABLE 174 MIDDLE EAST & AFRICA: CARBON NANOTUBES MARKET SIZE, BY TYPE, 2021–2026 (USD MILLION)

TABLE 175 MIDDLE EAST & AFRICA: CARBON NANOTUBES MARKET SIZE, BY TYPE, 2017–2020 (TONS)

TABLE 176 MIDDLE EAST & AFRICA: CARBON NANOTUBES MARKET SIZE, BY TYPE, 2021–2026 (TONS)

9.6.2 SAUDI ARABIA

9.6.2.1 Rising demand from end-use industries drives carbon nanotubes market

TABLE 177 SAUDI ARABIA: CARBON NANOTUBES MARKET SIZE, 2017–2020 (USD MILLION & TONS)

TABLE 178 SAUDI ARABIA: CARBON NANOTUBES MARKET SIZE, 2021–2026 (USD MILLION & TONS)

9.6.3 SOUTH AFRICA

9.6.3.1 Low production costs and access to new markets boost carbon nanotubes market

TABLE 179 SOUTH AFRICA: CARBON NANOTUBES MARKET SIZE, 2017–2020 (USD MILLION & TONS)

TABLE 180 SOUTH AFRICA: CARBON NANOTUBES MARKET SIZE, 2021–2026 (USD MILLION & TONS)

9.6.4 REST OF MIDDLE EAST & AFRICA

9.6.4.1 Growing demand across key industries expected to drive carbon nanotubes market

TABLE 181 REST OF MIDDLE EAST & AFRICA: CARBON NANOTUBES MARKET SIZE, 2017–2020 (USD MILLION & TONS)

TABLE 182 REST OF MIDDLE EAST & AFRICA: CARBON NANOTUBES MARKET SIZE, 2021–2026 (USD MILLION & TONS)

10 COMPETITIVE LANDSCAPE

10.1 OVERVIEW

FIGURE 31 KEY GROWTH STRATEGIES ADOPTED BY LEADING PLAYERS OF CNTS MARKET BETWEEN 2015 AND 2021

10.2 COMPETITIVE LEADERSHIP MAPPING

10.2.1 STARS

10.2.2 EMERGING LEADERS

10.2.3 PERVASIVE

10.2.4 EMERGING COMPANIES

FIGURE 32 CNTS MARKET (GLOBAL): COMPETITIVE LEADERSHIP MAPPING, 2020

10.3 STRENGTH OF PRODUCT PORTFOLIO

10.4 BUSINESS STRATEGY EXCELLENCE

10.5 SME MATRIX, 2020

10.5.1 PROGRESSIVE COMPANIES

10.5.2 RESPONSIVE COMPANIES

10.5.3 STARTING BLOCKS

10.5.4 DYNAMIC COMPANIES

FIGURE 33 CARBON NANOTUBES MARKET: EMERGING COMPANIES
COMPETITIVE LEADERSHIP MAPPING, 2020

10.6 COMPETITIVE SCENARIO

10.6.1 MARKET EVALUATION MATRIX

TABLE 183 COMPANY OVERALL FOOTPRINT

TABLE 184 COMPANY INDUSTRY FOOTPRINT

TABLE 185 COMPANY APPLICATION FOOTPRINT

TABLE 186 COMPANY REGIONAL FOOTPRINT

TABLE 187 STRATEGIC DEVELOPMENTS, BY KEY COMPANIES

TABLE 188 MOST FOLLOWED STRATEGIES

TABLE 189 GROWTH STRATEGIES ADOPTED BY KEY COMPANIES

10.7 COMPETITIVE SCENARIO

10.7.1 NEW PRODUCT DEVELOPMENT/LAUNCH

TABLE 190 NEW PRODUCT DEVELOPMENT/LAUNCH, 2015–2021

10.7.2 MERGER & ACQUISITION

TABLE 191 MERGER & ACQUISITION, 2015–2021

10.7.3 INVESTMENT & EXPANSION

TABLE 192 INVESTMENT & EXPANSION, 2015–2021

10.7.4 JOINT VENTURE & PARTNERSHIP

TABLE 193 JOINT VENTURE & PARTNERSHIP, 2016–2021

10.8 MARKET SHARE ANALYSIS

FIGURE 34 GLOBAL CNTS MARKET SHARE, BY KEY PLAYERS (2020)

10.9 DEGREE OF COMPETITION: COMPETITIVE

10.10 REVENUE ANALYSIS OF TOP MARKET PLAYERS

FIGURE 35 PERFORMANCE OF MAJOR PLAYERS OF CNTS MARKET IN 2020

11 COMPANY PROFILES

11.1 MAJOR COMPANIES

(Business overview, Products offered, Other Developments, Right to win, SWOT Analysis)*

11.2 LG CHEMICAL LIMITED

TABLE 194 LG CHEMICAL LIMITED: BUSINESS OVERVIEW

FIGURE 36 LG CHEMICAL LIMITED: COMPANY SNAPSHOT

FIGURE 37 LG CHEM: SWOT ANALYSIS

11.3 CABOT CORPORATION

TABLE 195 CABOT CORPORATION: BUSINESS OVERVIEW

FIGURE 38 CABOT CORPORATION: COMPANY SNAPSHOT

FIGURE 39 CABOT CORPORATION: SWOT ANALYSIS

11.4 SHOWA DENKO K.K.

TABLE 196 SHOWA DENKO K.K.: BUSINESS OVERVIEW

FIGURE 40 SHOWA DENKO K.K.: COMPANY SNAPSHOT

FIGURE 41 SHOWA DENKO K.K.: SWOT ANALYSIS

11.5 JIANGSU CNANO TECHNOLOGY CO., LTD.

TABLE 197 JIANGSU CNANO TECHNOLOGY CO. LTD.: BUSINESS OVERVIEW

11.6 CHENGDU ORGANIC CHEMICALS CO. LTD.

TABLE 198 CHENGDU ORGANIC CHEMICALS CO. LTD.: BUSINESS OVERVIEW

11.7 NANOCYL SA

TABLE 199 NANOCYL SA: BUSINESS OVERVIEW

FIGURE 42 NANOCYL SA: SWOT ANALYSIS

11.8 ARKEMA SA

TABLE 200 ARKEMA SA: BUSINESS OVERVIEW

FIGURE 43 ARKEMA SA: COMPANY SNAPSHOT

FIGURE 44 ARKEMA SA: SWOT ANALYSIS

11.9 SUMITOMO CORPORATION

TABLE 201 SUMITOMO CORPORATION: BUSINESS OVERVIEW

FIGURE 45 SUMITOMO CORPORATION: COMPANY SNAPSHOT

11.10 CHEAP TUBES, INC.

TABLE 202 CHEAP TUBES, INC.: BUSINESS OVERVIEW

FIGURE 46 CHEAP TUBES, INC.: SWOT ANALYSIS

11.11 HANWHA CORPORATION

TABLE 203 HANWHA CORPORATION: BUSINESS OVERVIEW

FIGURE 47 HANWHA CORPORATION: COMPANY SNAPSHOT

11.12 ARRY INTERNATIONAL GROUP LIMITED

TABLE 204 ARRY INTERNATIONAL GROUP LIMITED: BUSINESS OVERVIEW

11.13 CARBON SOLUTIONS, INC.

TABLE 205 CARBON SOLUTIONS, INC.: BUSINESS OVERVIEW

11.14 OCSIAL

TABLE 206 OSCIAL: BUSINESS OVERVIEW

11.15 OTHER KEY COMPANIES

TABLE 207 TORAY INTERNATIONAL GROUP LIMITED: BUSINESS OVERVIEW

11.15.2 KUMHO PETROCHEMICAL CO., LTD.

TABLE 208 HANWHA CORPORATION: BUSINESS OVERVIEW

11.15.3 KLEAN COMMODITIES

TABLE 209 KLEAN COMMODITIES: BUSINESS OVERVIEW

11.15.4 THOMAS SWAN & CO. LIMITED

TABLE 210 THOMAS SWAN & CO. LIMITED: BUSINESS OVERVIEW

11.15.5 RAYMOR

TABLE 211 RAYMOR: BUSINESS OVERVIEW

11.15.6 NANOLAB INC.

TABLE 212 NANOLAB INC.: BUSINESS OVERVIEW

11.15.7 NANOSHEL LLC

TABLE 213 HANWHA CORPORATION: BUSINESS OVERVIEW

11.15.8 CHASM ADVANCED MATERIALS, INC.

TABLE 214 CHASM ADVANCED MATERIALS, INC.: BUSINESS OVERVIEW

11.15.9 NANOTHINX S.A.

TABLE 215 NANOTHINX S.A.: BUSINESS OVERVIEW

11.15.10 NANO-C INC.

TABLE 216 NANO-C INC.: BUSINESS OVERVIEW

11.15.11 XINNANO MATERIALS, INC.

TABLE 217 XINNANO MATERIALS, INC.: BUSINESS OVERVIEW

11.15.12 REINSTE NANO VENTURES

TABLE 218 REINSTE NANO VENTURES: BUSINESS OVERVIEW

11.15.13 FUTURE-CARBON

TABLE 219 FUTURE-CARBON: BUSINESS OVERVIEW

11.15.14 HYPERION CATALYSIS INTERNATIONAL, INC.

11.15.15 HYOSUNG

*Details on Business overview, Products offered, Recent Developments, SWOT Analysis, MNM view might not be captured in case of unlisted companies.

11.16 LIST OF OTHER COMPANIES

12 APPENDIX

12.1 INSIGHTS OF INDUSTRY EXPERTS

12.2 DISCUSSION GUIDE

12.3 MARKET DYNAMICS

12.4 KNOWLEDGE STORE: MARKETSDANDMARKETS SUBSCRIPTION PORTAL

12.5 AVAILABLE CUSTOMIZATIONS

12.6 RELATED REPORTS

12.7 AUTHOR DETAILS

About

The report "Carbon Nanotubes (CNT) Market by Type (Single, Multi Walled), Method (Chemical Vapor Deposition, Catalytic Chemical Vapor Deposition, High Pressure Carbon Monoxide), Application (Electronics, Chemical, Batteries, Energy, Medical) - Global Forecast to 2023" The carbon nanotubes market is estimated to be USD 4.55 billion in 2018 and is projected to reach USD 9.84 billion by 2023, at a CAGR of 16.70%.

Major companies profiled in this report include:

Arkema S.A. (France), Arry International Group LTD. (China), Carbon Solutions Inc. (US), Cheap Tubes Inc. (US), CNT Co., Ltd. (Korea), Ocsial Llc (US), Hanwha Chemical Corp. (South Korea), Nano-C Inc. (US), Cnano Technology Ltd (US), Toray International Group Limited (Japan), Showa Denko K.K. (Japan), and Continental Carbon Company (US) among others.

This report provides a detailed segmentation of the carbon nanotubes market on the basis of type, method, application, and region. With respect to type, the market has been segmented into multi-walled carbon nanotube and single-walled carbon nanotube. Based on method, the market has been segmented into chemical vapor deposition, catalytic chemical vapor deposition, high pressure carbon monoxide reaction, and others. Based on application, the market has been segmented into advanced materials, electronics & semiconductors, chemical & polymers, batteries & capacitors, energy, aerospace & defense, and medical. Based on region, the market has been segmented into Asia Pacific, Europe, North America, South America, and Middle East & Africa.

Breakup of primary interviews:

By Company Type: Tier 1 – 60%, Tier 2 – 30%, and Tier 3 – 10%

By Designation: C-level – 50%, D-level – 40%, and Others – 10%

By Region: North America – 35%, Europe – 30%, Asia Pacific – 16%, South America – 12%, and Middle East & Africa – 7%

Among type, the multi-walled carbon nanotube (MWCNT) segment is expected to

grow at the highest CAGR during the forecast period.

MWNT find applications in electrical conductive transparent electrodes, conductive heating films, conductive nano inks, nanodevices, displays, chemical sensors, super batteries, supercapacitors, energy storage, solar industries, thermal interface material, and so on. The high demand from various applications, including drug delivery, field emission, interconnects, sensors, biomedical applications, and others, is also driving the global single-walled carbon nanotubes market.

By method, the chemical vapor deposition (CVD) segment of the carbon nanotubes market is expected to grow at the highest CAGR during the forecast period.

The CVD segment of the carbon nanotubes market is expected to grow at the highest CAGR during the forecast period. CVD was also the largest method segment globally in 2017. It is the cheapest among all. The prices for CVD are assumed to decrease incrementally with the improving technologies and increased production & commercialization. This decrease in price is expected to keep the CAGR for CVD on a higher side for both volume and value markets.

The Asia Pacific carbon nanotubes market is expected to grow at the highest CAGR during the forecast period.

The Asia Pacific carbon nanotubes market is expected to grow at the highest CAGR during the forecast period, which can be attributed to the rising demand for carbon nanotubes from emerging economies of the region, including India, China, South Korea, Vietnam, Taiwan, and Singapore, among others. In addition, factors such as the improving standards of living and rising per capita incomes in the countries of the APAC region are fueling the growth of the market.

I would like to order

Product name: Carbon Nanotubes (CNT) Market by Type (Single Walled & Multi Walled), End-use Industry (Electronics & Semiconductors, Chemical Materials & Polymers, Structural Composites, Energy & Storage, Medical), Method, and Region - Global Forecast to 2026

Product link: <https://marketpublishers.com/r/C09EA046147EN.html>

Price: US\$ 4,950.00 (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/C09EA046147EN.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