

# **Global Nanowires Market Size study & Forecast, by Product Type (Metal Nanowires, Semiconductor Nanowires, Oxide Nanowires, Multi-Segment Nanowires, Semi-Conductor Quantum Wires) by Application (Magnetic Devices, Logic Gates, Chemical Biological Sensors, Nanogenerators, Solar Cells, Field Effect Transistors), and Regional Analysis, 2022-2029**

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## **Abstracts**

Global Nanowires Market is valued at approximately USD xx billion in 2021 and is anticipated to grow with a healthy growth rate of more than x% over the forecast period 2022-2029. Nanowires is a structure which has appealing effects and they have less nanometers of breadth and height and they show different mechanical, thermal, optical and electrical properties. There are 2 approaches which are the top-down and bottom-up approaches and it depends upon the properties of nanowires. The Nanowires market is expanding because of increasing demand for high-end efficient electronic devices. The key material that has been used in transistors is nanowires. According to a study by International Energy Association, it has been found that there has been an increase in the electricity consumption by households because of their electronic devices and there would be three times increase in electricity consumption by information and communication technologies. The other driving factors for the market are increasing demand for conductive materials which are transparent and flexible and can be used in various industries.

The invention or innovation in technology of nanowires is the biggest opportunity for firms producing nanowires. There are a lot of technological advantages of nanowires but they are not available for market use yet. So, this is the biggest opportunity where the industries can put nanowires with technological innovations in the market for

commercial devices which in turn will increase the revenues. The growth factors in the nanowires market are the recent use in LEDs (Light Emitting Diodes). Samsung, Panasonic and LG are the top companies for nanowires LED technology. As per Statista, the sales of LED Bulbs were 75.81 billion US Dollars in 2020 and it is forecasted to reach 160.03 billion US Dollars by 2026. And apart from LED bulbs, nanowires are used in nanomedicines and consumer electronics, and these uses act as a driving factor in the global nanowires market. However, there is a smaller number of reliable manufacturing methods for nanowires. There are various techniques for nanowire production such as vapor disposition, suspension, and many others. but the reliable methods are less.

The key regions considered for the Global Nanowires Market study includes Asia Pacific, North America, Europe, Latin America, and Rest of the World. North America dominated the market in terms of revenue, owing to research and developmental innovations in nanowires and goods raw material processing, because of which they were able to produce high-end efficient electronic devices. The key market in North America is the semi-conductor industry which will increase further through deep research and developmental innovations in nanotechnology. Asia Pacific is expected to grow with the highest CAGR during the forecast period, owing to factors such as changes in the standard of living of people in the major countries such as China, Japan, and ASEAN. And there has been an emerging economy and a lot of people are moving abroad for their studies, so these are the few factors which are leading to an increase in the nanowires market in the Asia Pacific.

Major market player included in this report are:

Novarials Corporation  
NanoComposix Inc.  
RAS AG Material technologies  
ACS Materials LLC  
Cambrios Technologies Corp.  
C3 Nano Inc.  
OneD Battery Sciences  
Kemix Pty Ltd.  
US Nano LLC  
Plasma Chem GmbH

Recent Developments in the Market:

In May 2022, New Silicon Nanowires have been introduced and this new material can take heat 150% more proficiently than old materials that have been used.

In September 2022, Researchers from Oxford University invented a technique to increase the accuracy of nanowires. And this discovery would increase the development of more powerful computer chips.

In October 2020, NanoDirect introduced Direct Silver Line which is a silver nanowire product line, it has been launched for its use in electronic inks and flexible electronics.

In October 2022, C3 Nano issued a statement about gearing up its ultra-nanowires product line through which they can advance unconventional industry uses with plated nanowires.

Global Nanowires Market Report Scope:

Historical Data 2019-2020-2021

Base Year for Estimation 2021

Forecast period 2022-2029

Report Coverage Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Segments Covered Product Type, Application, Region

Regional Scope North America; Europe; Asia Pacific; Latin America; Rest of the World

Customization Scope Free report customization (equivalent up to 8 analyst's working hours) with purchase. Addition or alteration to country, regional & segment scope\*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values to the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within countries involved in the study.

The report also caters detailed information about the crucial aspects such as driving factors & challenges which will define the future growth of the market. Additionally, it also incorporates potential opportunities in micro markets for stakeholders to invest along with the detailed analysis of competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

By Product Type:

Metal Nanowires

Semiconductor Nanowires

Oxide Nanowires

Multi-Segment Nanowires

Semi-Conductor Quantum Wires

By Application:

Magnetic Devices

Logic Gates

Chemical Biological Sensors

Nanogenerators

Solar Cells

Field Effect Transistors

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Rest of the World

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