

# **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**

<https://marketpublishers.com/r/GF6C666616C0EN.html>

Date: May 2023

Pages: 200

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

ID: GF6C666616C0EN

## **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

## Contents

### CHAPTER 1. EXECUTIVE SUMMARY

- 1.1. Market Snapshot
- 1.2. Global & Segmental Market Estimates & Forecasts, 2019-2029 (USD Billion)
  - 1.2.1. Nanowires Market, by Region, 2019-2029 (USD Billion)
  - 1.2.2. Nanowires Market, by Product Types, 2019-2029 (USD Billion)
  - 1.2.3. Nanowires Market, by Applications, 2019-2029 (USD Billion)
- 1.3. Key Trends
- 1.4. Estimation Methodology
- 1.5. Research Assumption

### CHAPTER 2. GLOBAL NANOWIRES MARKET DEFINITION AND SCOPE

- 2.1. Objective of the Study
- 2.2. Market Definition & Scope
  - 2.2.1. Scope of the Study
  - 2.2.2. Industry Evolution
- 2.3. Years Considered for the Study
- 2.4. Currency Conversion Rates

### CHAPTER 3. GLOBAL NANOWIRES MARKET DYNAMICS

- 3.1. Nanowires Market Impact Analysis (2019-2029)
  - 3.1.1. Market Drivers
    - 3.1.1.1. Increasing demand for highly efficient electronic devices
    - 3.1.1.2. Increasing demand for conductive materials
  - 3.1.2. Market Challenges
    - 3.1.2.1. Less number of reliable manufacturing methods for nanowires
  - 3.1.3. Market Opportunities
    - 3.1.3.1. Innovation in technology of nanowires
    - 3.1.3.2. Recent use in LEDs

### CHAPTER 4. GLOBAL NANOWIRES MARKET INDUSTRY ANALYSIS

- 4.1. Porter's 5 Force Model
  - 4.1.1. Bargaining Power of Suppliers
  - 4.1.2. Bargaining Power of Buyers

- 4.1.3. Threat of New Entrants
- 4.1.4. Threat of Substitutes
- 4.1.5. Competitive Rivalry
- 4.2. Futuristic Approach to Porter's 5 Force Model (2019-2029)
- 4.3. PEST Analysis
  - 4.3.1. Political
  - 4.3.2. Economical
  - 4.3.3. Social
  - 4.3.4. Technological
- 4.4. Investment Adoption Model
- 4.5. Analyst Recommendation & Conclusion
- 4.6. Top investment opportunity
- 4.7. Top winning strategies

## **CHAPTER 5. RISK ASSESSMENT: COVID-19 IMPACT**

- 5.1. Assessment of the overall impact of COVID-19 on the industry
- 5.2. Pre COVID-19 and post COVID-19 Market scenario

## **CHAPTER 6. GLOBAL NANOWIRES MARKET, BY PRODUCT TYPE**

- 6.1. Market Snapshot
- 6.2. Global Nanowires Market by Product Type, Performance - Potential Analysis
- 6.3. Global Nanowires Market Estimates & Forecasts by Product Type 2019-2029 (USD Billion)
- 6.4. Nanowires Market, Sub Segment Analysis
  - 6.4.1. Metal Nanowires
  - 6.4.2. Semiconductor Nanowires
  - 6.4.3. Oxide Nanowires
  - 6.4.4. Multi-Segment Nanowires
  - 6.4.5. Semi-Conductor Quantum Wires

## **CHAPTER 7. GLOBAL NANOWIRES MARKET, BY APPLICATIONS**

- 7.1. Market Snapshot
- 7.2. Global Nanowires Market by Applications, Performance - Potential Analysis
- 7.3. Global Nanowires Market Estimates & Forecasts by Applications 2019-2029 (USD Billion)
- 7.4. Nanowires Market, Sub Segment Analysis

- 7.4.1. Magnetic Devices
- 7.4.2. Logic Gates
- 7.4.3. Chemical Biological Sensors
- 7.4.4. Nanogenerators
- 7.4.5. Solar Cells
- 7.4.6. Field Effect Transistors

## **CHAPTER 8. GLOBAL NANOWIRES MARKET, REGIONAL ANALYSIS**

- 8.1. Nanowires Market, Regional Market Snapshot
- 8.2. North America Nanowires Market
  - 8.2.1. U.S. Nanowires Market
    - 8.2.1.1. Product Types breakdown estimates & forecasts, 2019-2029
    - 8.2.1.2. Applications breakdown estimates & forecasts, 2019-2029
  - 8.2.2. Canada Nanowires Market
- 8.3. Europe Nanowires Market Snapshot
  - 8.3.1. U.K. Nanowires Market
  - 8.3.2. Germany Nanowires Market
  - 8.3.3. France Nanowires Market
  - 8.3.4. Spain Nanowires Market
  - 8.3.5. Italy Nanowires Market
  - 8.3.6. Rest of Europe Nanowires Market
- 8.4. Asia-Pacific Nanowires Market Snapshot
  - 8.4.1. China Nanowires Market
  - 8.4.2. India Nanowires Market
  - 8.4.3. Japan Nanowires Market
  - 8.4.4. Australia Nanowires Market
  - 8.4.5. South Korea Nanowires Market
  - 8.4.6. Rest of Asia Pacific Nanowires Market
- 8.5. Latin America Nanowires Market Snapshot
  - 8.5.1. Brazil Nanowires Market
  - 8.5.2. Mexico Nanowires Market
- 8.6. Rest of The World Nanowires Market

## **CHAPTER 9. COMPETITIVE INTELLIGENCE**

- 9.1. Top Market Strategies
- 9.2. Company Profiles
  - 9.2.1. Novarials Corporation

- 9.2.1.1. Key Information
- 9.2.1.2. Overview
- 9.2.1.3. Financial (Subject to Data Availability)
- 9.2.1.4. Product Summary
- 9.2.1.5. Recent Developments
- 9.2.2. NanoComposix Inc.
- 9.2.3. Ras AG Material Technologies
- 9.2.4. ACS Materials LLC
- 9.2.5. Cambrios Technologies Corp.
- 9.2.6. C3 Nano Inc.
- 9.2.7. OneD Battery Sciences
- 9.2.8. Kemix Pty Ltd.
- 9.2.9. US Nano LLC
- 9.2.10. Plasma Chem GmbH

## **CHAPTER 10. RESEARCH PROCESS**

- 10.1. Research Process
  - 10.1.1. Data Mining
  - 10.1.2. Analysis
  - 10.1.3. Market Estimation
  - 10.1.4. Validation
  - 10.1.5. Publishing
- 10.2. Research Attributes
- 10.3. Research Assumption



## List Of Tables

### LIST OF TABLES

TABLE 1. Global Nanowires Market, report scope

TABLE 2. Global Nanowires Market estimates & forecasts by Region 2019-2029 (USD Billion)

TABLE 3. Global Nanowires Market estimates & forecasts by Product Types 2019-2029 (USD Billion)

TABLE 4. Global Nanowires Market estimates & forecasts by Applications 2019-2029 (USD Billion)

TABLE 5. Global Nanowires Market by segment, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 6. Global Nanowires Market by region, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 7. Global Nanowires Market by segment, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 8. Global Nanowires Market by region, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 9. Global Nanowires Market by segment, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 10. Global Nanowires Market by region, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 11. Global Nanowires Market by segment, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 12. Global Nanowires Market by region, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 13. Global Nanowires Market by segment, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 14. Global Nanowires Market by region, estimates & forecasts, 2019-2029 (USD Billion)

TABLE 15. U.S. Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 16. U.S. Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 17. U.S. Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 18. Canada Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 19. Canada Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 20. Canada Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 21. UK Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 22. UK Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 23. UK Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 24. Germany Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 25. Germany Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 26. Germany Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 27. France Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 28. France Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 29. France Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 30. Italy Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 31. Italy Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 32. Italy Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 33. Spain Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 34. Spain Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 35. Spain Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 36. RoE Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 37. RoE Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 38. RoE Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 39. China Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 40. China Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 41. China Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 42. India Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 43. India Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

Billion)

TABLE 44. India Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 45. Japan Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 46. Japan Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 47. Japan Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 48. South Korea Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 49. South Korea Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 50. South Korea Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 51. Australia Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 52. Australia Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 53. Australia Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 54. RoAPAC Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 55. RoAPAC Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 56. RoAPAC Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 57. Brazil Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 58. Brazil Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 59. Brazil Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 60. Mexico Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 61. Mexico Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 62. Mexico Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 63. RoLA Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 64. RoLA Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 65. RoLA Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 66. Row Nanowires Market estimates & forecasts, 2019-2029 (USD Billion)

TABLE 67. Row Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 68. Row Nanowires Market estimates & forecasts by segment 2019-2029 (USD Billion)

TABLE 69. List of secondary sources, used in the study of global Nanowires Market

TABLE 70. List of primary sources, used in the study of global Nanowires Market

TABLE 71. Years considered for the study

TABLE 72. Exchange rates considered

List of tables and figures and dummy in nature, final lists may vary in the final deliverable

## List Of Figures

### LIST OF FIGURES

- FIG 1. Global Nanowires Market, research methodology
  - FIG 2. Global Nanowires Market, Market estimation techniques
  - FIG 3. Global Market size estimates & forecast methods
  - FIG 4. Global Nanowires Market, key trends 2021
  - FIG 5. Global Nanowires Market, growth prospects 2022-2029
  - FIG 6. Global Nanowires Market, porters 5 force model
  - FIG 7. Global Nanowires Market, pest analysis
  - FIG 8. Global Nanowires Market, value chain analysis
  - FIG 9. Global Nanowires Market by segment, 2019 & 2029 (USD Billion)
  - FIG 10. Global Nanowires Market by segment, 2019 & 2029 (USD Billion)
  - FIG 11. Global Nanowires Market by segment, 2019 & 2029 (USD Billion)
  - FIG 12. Global Nanowires Market by segment, 2019 & 2029 (USD Billion)
  - FIG 13. Global Nanowires Market by segment, 2019 & 2029 (USD Billion)
  - FIG 14. Global Nanowires Market, regional snapshot 2019 & 2029
  - FIG 15. North America Nanowires Market 2019 & 2029 (USD Billion)
  - FIG 16. Europe Nanowires Market 2019 & 2029 (USD Billion)
  - FIG 17. Asia pacific Nanowires Market 2019 & 2029 (USD Billion)
  - FIG 18. Latin America Nanowires Market 2019 & 2029 (USD Billion)
  - FIG 19. Global Nanowires Market, company Market share analysis (2021)
- List of tables and figures and dummy in nature, final lists may vary in the final deliverable

## I would like to order

Product name: 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

Product link: <https://marketpublishers.com/r/GF6C666616C0EN.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](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/GF6C666616C0EN.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