

Global Nanowire Battery Market by Material Type (Silicon, Germanium, Transition Metal Oxides, Gold), by Industry Type (Consumer Electronics, Automotive, Aviation, Energy, Medical Devices), and Regional Analysis, 2022-2029

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Abstracts

Global Nanowire Battery Market is valued at approximately USD 53 million in 2021 and is anticipated to grow with a healthy growth rate of more than 35.7% over the forecast period 2022-2029. A nanowire battery is an advanced version of a lithium-ion battery, in which the surface area of one or both electrodes increases by using nanowires. These batteries are considered as an ideal substitute for lithium-ion batteries, which are used for consumer electronics and electric vehicles. These wires are capable to expand four times their original size when charged with no fracturing. Accordingly, the surge in demand for batteries with high charge retention capacity, the exponential growth of the consumer electronics industry, and the rising demand for advanced medical applications and devices are the key factors that are stipulating the market demand across the globe.

The rising demand for electric vehicles plays a significant role that is bolstering the adoption of nanowire batteries. According to the India Brand Equity Foundation (IBEF), in 2021, it was estimated that the sales of electric vehicles (EVs) get doubled in 2021 compared to 2020 and witnessed a new record of 6.6 million electric vehicle sales. Similarly, as per Statista, in Brazil, the sales of electric vehicles during 2021 accounted for around 7,272 units, which is projected to reach over 17,860 units by 2027. Thus, the rising application of nanowire batteries in electric vehicles is creating various growth prospects in the global market. Moreover, growing spendings in research and development activities by automotive companies, as well as increasing need for high-performance batteries in electric grid storage applications are presenting various

lucrative opportunities over the forecasting years. However, the high presence of substitute battery technologies and high volume change of silicon nanowires during charge and discharge cycles are challenging factors for the market growth throughout the forecast period of 2022-2029.

The key regions considered for the Global Nanowire Battery Market study include Asia Pacific, North America, Europe, Latin America, and the Rest of the World. North America is the leading region across the world in terms of market share owing to rising innovations and technological advancements. Whereas, Asia-Pacific is anticipated to emerge as the fastest-growing market region during the forecast period 2019- 2026. Factors such as rise demand for batteries with high charge retention capacity enhance battery technology for electric mobility would create lucrative growth opportunities for the Asia-Pacific region during the forecast period of 2019-2026.

Major market player included in this report are:

Amprius Inc.

Sila Nanotechnologies Inc.

OneD Material, Inc.

Nexeon Limited

NEI Corporation

XG Sciences, Inc.

LG Chem Ltd.

Panasonic Holdings Corporation

Samsung SDI Co. Ltd.

Enevate Corporation

Recent Developments in the Market:

In January 2019, Harley Davidson (US), a renowned producer of high-end motorcycles, and Samsung SDI have signed a contract. At the 2019 International CES in Las Vegas, Nevada, Harley-Davidson debuted LiveWire, its first electric motorcycle, which features a lithium-ion battery pack from Samsung SDI.

Global Nanowire Battery 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 Material Type, Industry Type, 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 Material Type:

Silicon

Germanium

Transition Metal Oxides

Gold

By Industry Type:

Consumer Electronics

Automotive

Aviation

Energy

Medical devices

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
RoLA
Rest of the World

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