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Battery Materials (Next-Gen) Market Forecasts to 2034 – Global Analysis By Battery Type (Solid-State Batteries, Lithium-Sulfur Batteries, Sodium-Ion Batteries, Lithium-Air Batteries and Other Battery Types), Material Type, Chemistry, Application, End User and By Geography

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Abstracts

According to Stratistics MRC, the Global Battery Materials (Next-Gen) Market is accounted for $18.28 billion in 2026 and is expected to reach $50.37 billion by 2034 growing at a CAGR of 13.4% during the forecast period. Battery Materials (Next-Gen) refer to advanced materials used to improve the performance, efficiency, and sustainability of next-generation batteries. These include solid-state electrolytes, silicon anodes, lithium-sulfur compounds, and advanced cathode materials. These innovations aim to enhance energy density, charging speed, safety, and lifecycle. They are critical for applications such as electric vehicles, renewable energy storage, and portable electronics. Increasing demand for high-performance energy storage and advancements in material science are driving the development and commercialization of next-generation battery materials.

Market Dynamics:

Driver:

Growing demand for high-performance batteries

Global electrification trends are driving demand for advanced battery materials. Electric vehicles, consumer electronics, and renewable energy storage systems require

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batteries with higher energy density, faster charging, and longer lifespans. Solid?state and lithium?metal batteries are gaining traction as next?generation solutions. Governments worldwide are incentivizing EV adoption, amplifying demand for high?performance materials. Grid modernization initiatives also rely on advanced batteries for stability and resilience.

Restraint:

High cost of advanced materials

Specialized inputs such as lithium, cobalt, and nickel drive up costs. Complex manufacturing processes add further expense and limit scalability. Smaller firms struggle to justify the high upfront investment. Price volatility in rare elements creates uncertainty for long?term projects. As a result, high material costs act as a restraint on market expansion.

Opportunity:

Recycling and reuse of battery components

Circular economy initiatives are encouraging recovery of lithium, cobalt, and nickel from used batteries. Advanced recycling technologies reduce dependence on raw material mining. Partnerships between automakers and recycling firms accelerate commercialization. Regulatory frameworks in Europe and Asia support large?scale recycling programs. As adoption grows, recycling will significantly enhance sustainability and reduce costs.

Threat:

Volatility in raw material prices

Volatility in raw material prices poses a threat to battery material supply chains. Lithium, cobalt, and nickel markets are highly sensitive to geopolitical and economic shifts. Price spikes disrupt production planning and increase costs for manufacturers. Dependence on limited geographic sources adds further risk. Volatility also discourages investment in long?term projects. Without stable supply chains, raw material price fluctuations remain a persistent threat.

Covid-19 Impact:

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The Covid?19 pandemic disrupted mining and supply chains for critical battery materials. EV and electronics production slowed during 2020–2021 due to shortages. However, recovery programs emphasized green mobility and renewable energy, boosting demand post?pandemic. Governments increased funding for sustainable infrastructure, accelerating adoption of advanced batteries. Consumer demand for portable electronics remained resilient, supporting market stability. Overall, Covid?19 created short?term challenges but reinforced long?term opportunities.

The solid-state batteries segment is expected to be the largest during the forecast period

The solid-state batteries segment is expected to account for the largest market share during the forecast period as solid?state technology offers superior energy density, safety, and longevity compared to conventional lithium?ion batteries. Automakers are investing heavily in solid?state R&D for next?generation EVs. Consumer electronics firms are also exploring solid?state adoption for compact devices. Continuous innovation in electrolytes enhances performance. Regulatory support for safer battery technologies further strengthens dominance.

The grid energy storage segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the grid energy storage segment is predicted to witness the highest growth rate due to rising demand for renewable energy integration. Advanced batteries enable stable storage of solar and wind power. Governments are investing in large?scale energy storage projects to modernize grids. Utilities are adopting next?gen batteries to improve resilience and efficiency. Expanding renewable energy capacity amplifies demand for durable storage solutions.

Region with largest share:

During the forecast period, the strong EV production, consumer electronics demand, and government support. China, Japan, and South Korea dominate global battery manufacturing capacity. Regional investments in solid?state and lithium?metal technologies reinforce leadership. Expanding renewable energy projects further boost adoption. Regulatory frameworks encourage sustainable battery development. Collectively, these factors secure Asia Pacific’s leadership in market share. Asia Pacific region is expected to hold the largest market share owing to

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Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR driven by rapid electrification and industrial expansion. Rising EV adoption in China and India accelerates demand for advanced materials. Regional governments are funding large?scale recycling and innovation programs. Expanding consumer electronics markets amplify adoption. Industrial infrastructure supports commercialization of next?gen batteries. As a result, Asia Pacific will emerge as both the largest and fastest?growing region in the battery materials market.

Key players in the market

Some of the key players in Battery Materials (Next-Gen) Market include BASF SE, Umicore N.V., Albemarle Corporation, LG Chem Ltd., Panasonic Corporation, Tesla, Inc., CATL, Samsung SDI Co., Ltd., Sumitomo Metal Mining Co., Ltd., Toray Industries, Inc., SK Innovation Co., Ltd., Johnson Matthey plc, Entegris, Inc., 3M Company, Solvay S.A., Wacker Chemie AG, Evonik Industries AG.

Key Developments:

In March 2026, Samsung SDI Launched its first Pouch-Type All-Solid-State Battery sample at InterBattery 2026. While prismatic versions target EVs, this pouch form factor is designed for 'Physical AI' (humanoid robots), providing the high power output and energy density required for autonomous movement.

In February 2026, BASF SE announced a strategic pivot for its Battery Materials division. To manage high technology risks, BASF has significantly reduced capital expenditures and signed 'take-or-pay' contracts with key customers to utilize existing capacity. The division now operates with greater operational independence to seek value-chain cooperations.

Battery Types Covered:

- Solid-State Batteries
- Lithium-Sulfur Batteries
- Sodium-Ion Batteries

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- Lithium-Air Batteries
- Other Battery Types

Material Types Covered:

- Cathode Materials
- Anode Materials
- Electrolytes (Solid & Liquid)
- Separators
- Conductive Additives
- Other Material Types

Chemistries Covered:

- Lithium-Based Chemistry
- Sodium-Based Chemistry
- Sulfur-Based Chemistry
- Silicon-Based Anodes
- Other Chemistries

Applications Covered:

- Electric Vehicles (EVs)
- Consumer Electronics

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- Grid Energy Storage
- Industrial Equipment
- Aerospace & Defense
- Other Applications

End Users Covered:

- Automotive OEMs
- Battery Manufacturers
- Electronics Manufacturers
- Energy & Utilities
- Research Organizations
- Other End Users

Regions Covered:

- North America
  - United States
  - Canada
  - Mexico
- Europe
  - United Kingdom

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- Germany
- France
- Italy
- Spain
- Netherlands
- Belgium
- Sweden
- Switzerland
- Poland
- Rest of Europe

Asia Pacific

- China
- Japan
- India
- South Korea
- Australia
- Indonesia
- Thailand
- Malaysia
- Singapore

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- Vietnam
- Rest of Asia Pacific

South America

- Brazil
- Argentina
- Colombia
- Chile
- Peru
- Rest of South America

Rest of the World (RoW)

- Middle East
  - Saudi Arabia
  - United Arab Emirates
  - Qatar
  - Israel
  - Rest of Middle East
- Africa
  - South Africa
  - Egypt

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Morocco

Rest of Africa

What our report offers:
- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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Note: Tables for North America, Europe, APAC, South America, and Rest of the World (RoW) are also represented in the same manner as above.

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