

Global Rare Earth Metals Recycling Market Size Study, by Application (Permanent Magnets, Alloys, Polishing Materials, Glass, Catalyst, Phosphor, Ceramics, Hydrogen Storage Alloys), by Technology (Hydrometallurgical, Pyrometallurgical), and Regional Forecasts 2022-2032

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Abstracts

The Global Rare Earth Metals Recycling Market, valued at approximately USD 275.78 million in 2023, is projected to grow at an impressive CAGR of 11.20% over the forecast period 2024-2032. Rare earth metals, critical for advanced technologies in industries like electronics, renewable energy, and automotive manufacturing, are experiencing heightened demand as global supply constraints drive interest in efficient recycling methods. Recycling rare earth metals not only conserves these valuable resources but also mitigates environmental challenges associated with mining activities.

The market's expansion is driven by escalating use of rare earth metals in permanent magnets, catalysts, and phosphors, along with increasing regulatory emphasis on sustainable practices. Hydrometallurgical and pyrometallurgical technologies are advancing, offering efficient pathways for extracting rare earth elements from discarded products and industrial residues. For instance, recycling initiatives targeting wind turbine components and electric vehicle batteries have gained significant traction, setting benchmarks for resource recovery and reuse.

However, high operational costs, technological complexities, and inconsistent recycling rates present barriers to market growth. Despite these challenges, innovations in recycling technologies and government-backed initiatives are creating opportunities for streamlined and cost-effective processes. Partnerships between industry stakeholders

and research institutions are also playing a pivotal role in overcoming these obstacles and enhancing recovery efficiencies.

Regionally, North America is a prominent contributor to the market in 2023, benefiting from established recycling infrastructure and strong governmental support. Europe follows closely, with its rigorous environmental regulations and well-developed rare earth recycling frameworks. Meanwhile, the Asia-Pacific region is anticipated to exhibit the fastest growth, driven by its burgeoning industrial base, growing adoption of clean technologies, and increasing investments in sustainable material management solutions.

Major market players included in this report are:

Lynas Corporation

China Northern Rare Earth Group

Solvay S.A.

Hitachi Metals, Ltd.

Umicore N.V.

American Rare Earths Ltd.

Iluka Resources

Shin-Etsu Chemical Co., Ltd.

REEcycle

Mitsubishi Chemical Corporation

Ucore Rare Metals Inc.

Urban Mining Company

Rainbow Rare Earths Limited

Arafura Resources

Neo Performance Materials

The detailed segments and sub-segment of the market are explained below:

By Application:

Permanent Magnets

Alloys

Polishing Materials

Glass

Catalyst

Phosphor

Ceramics

Hydrogen Storage Alloys

By Technology:

Hydrometallurgical

Pyrometallurgical

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

Rest of Europe

Asia Pacific

China

India

Japan

Australia

South Korea

Rest of Asia Pacific

Latin America

Brazil

Mexico

Middle East & Africa

Saudi Arabia

South Africa

Rest of Middle East & Africa

Key Takeaways:

Detailed market estimates and forecasts from 2022 to 2032.

Comprehensive regional insights and country-level analysis.

In-depth segmentation analysis covering application and technology.

Strategic profiling of leading players with insights into growth initiatives.

Exploration of emerging trends and innovations in rare earth recycling.

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