

Global Titanium-Based MMO Anodes Supply, Demand and Key Producers, 2026-2032

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Abstracts

The global Titanium-Based MMO Anodes market size is expected to reach \$ 822 million by 2032, rising at a market growth of 4.0% CAGR during the forecast period (2026-2032).

A Titanium-Based MMO Anodes are electrochemical electrode that uses titanium as the mechanical backbone and corrosion-resistant current collector, combined with one or more functional layers or materials that provide the desired electrochemical activity. In most industrial designs, titanium is not the main catalytic surface; instead it is composited with coatings such as mixed metal oxides (MMO, e.g., IrO₂/RuO₂/Ta₂O₅), platinum-group metals, doped metal oxides, or other catalytic films deposited onto a titanium plate, mesh, tube, or porous substrate, sometimes with intermediate barrier layers to improve adhesion and prevent passivation. This composite structure yields a long-life, dimensionally stable electrode with low overpotential and stable performance under aggressive electrolytes and high current density, and it is widely used in chlor-alkali and electrochlorination, wastewater electro-oxidation, electroplating/metal finishing, cathodic protection, and certain electrolysis and energy-storage systems. The product has an annual output of approximately 2 million square meters, and the price varies considerably depending on the materials used, with an average price of approximately US\$300 per square meter.

Upstream for Titanium-Based MMO Anodes starts with titanium sponge/ingot supply and mill processing into plates, meshes, tubes, or porous substrates, plus sourcing of catalytic and barrier-layer materials such as platinum-group metals and precursor salts (Ir/Ru/Pt, Ta, Sn, Sb, etc.), ceramic/oxide powders, binders, and specialty chemicals for surface preparation; manufacturers then fabricate the titanium substrate, activate the surface (degreasing, pickling, grit blasting/etching), and apply the functional layers by

thermal decomposition, electroplating, sputtering, sol-gel, CVD/ALD, or sintering, followed by curing, inspection, and electrochemical qualification, with cost and lead time heavily influenced by precious-metal prices and coating yield. Downstream, these electrodes are sold directly or via integrators to OEMs and end users in chlor-alkali/electrochlorination, wastewater treatment, electroplating and metal finishing, electrowinning, cathodic protection, and some electrolyzers, where value is realized through energy efficiency and service life; recurring aftermarket demand comes from recoating/refurbishment, replacement of worn anodes, and consumables/services tied to system operation (power supplies, rectifiers, control systems), while adoption is shaped by total cost of ownership, compliance requirements, and the customer's ability to standardize electrode geometry and coating specification across multiple lines.

This report studies the global Titanium-Based MMO Anodes production, demand, key manufacturers, and key regions.

This report is a detailed and comprehensive analysis of the world market for Titanium-Based MMO Anodes and provides market size (US\$ million) and Year-over-Year (YoY) Growth, considering 2025 as the base year. This report explores demand trends and competition, as well as details the characteristics of Titanium-Based MMO Anodes that contribute to its increasing demand across many markets.

Highlights and key features of the study

Global Titanium-Based MMO Anodes total production and demand, 2021-2032, (Sq m)
Global Titanium-Based MMO Anodes total production value, 2021-2032, (USD Million)
Global Titanium-Based MMO Anodes production by region & country, production, value, CAGR, 2021-2032, (USD Million) & (Sq m), (based on production site)
Global Titanium-Based MMO Anodes consumption by region & country, CAGR, 2021-2032 & (Sq m)
U.S. VS China: Titanium-Based MMO Anodes domestic production, consumption, key domestic manufacturers and share
Global Titanium-Based MMO Anodes production by manufacturer, production, price, value and market share 2021-2026, (USD Million) & (Sq m)
Global Titanium-Based MMO Anodes production by Type, production, value, CAGR, 2021-2032, (USD Million) & (Sq m)
Global Titanium-Based MMO Anodes production by Application, production, value, CAGR, 2021-2032, (USD Million) & (Sq m)

This report profiles key players in the global Titanium-Based MMO Anodes market based on the following parameters - company overview, production, value, price, gross

margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include De Nora, Umicore, Permaskand, Metso, SPF, Xi'an Taijin Xinneng Technology, Baojichangli Special Metal, Jiangyin Anuo Electrode, Jiangyin Miracle Electrolysis Equipment, Magneto Special Anodes, etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Stakeholders would have ease in decision-making through various strategy matrices used in analyzing the World Titanium-Based MMO Anodes market

Detailed Segmentation:

Each section contains quantitative market data including market by value (US\$ Millions), volume (production, consumption) & (Sq m) and average price (US\$/Sq m) by manufacturer, by Type, and by Application. Data is given for the years 2021-2032 by year with 2025 as the base year, 2026 as the estimate year, and 2027-2032 as the forecast year.

Global Titanium-Based MMO Anodes Market, By Region:

United States

China

Europe

Japan

South Korea

ASEAN

India

Rest of World

Global Titanium-Based MMO Anodes Market, Segmentation by Type:

Ruthenium-based Titanium Electrodes

Iridium-based Titanium Electrodes

Platinum-based Titanium Electrodes

Others

Global Titanium-Based MMO Anodes Market, Segmentation by Shape:

Mesh

Plate

Rod

Tube

Others

Global Titanium-Based MMO Anodes Market, Segmentation by Application:

New Energy Batteries

Electrolytic Copper Foil

PCB Manufacturing

Hydrogen Production

Wastewater Treatment

Others

Companies Profiled:

De Nora

Umicore

Permaskand

Metso

SPF

Xi'an Taijin Xinneng Technology

Baojichangli Special Metal

Jiangyin Anuo Electrode

Jiangyin Miracle Electrolysis Equipment

Magneto Special Anodes

Baoji Qixin Titanium

Zhongrui Guoneng Technology

Jiangsu Yi'anteng Special Electrode

UTron Technology

Baoji Ruicheng Titanium

Key Questions Answered:

1. How big is the global Titanium-Based MMO Anodes market?
2. What is the demand of the global Titanium-Based MMO Anodes market?
3. What is the year over year growth of the global Titanium-Based MMO Anodes market?
4. What is the production and production value of the global Titanium-Based MMO Anodes market?
5. Who are the key producers in the global Titanium-Based MMO Anodes market?

6. What are the growth factors driving the market demand?

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