

Tantalum and Niobium Business

Germany-based Group company TANIOBIS GmbH (hereinafter “TANIOBIS”) is one of the world’s leading manufacturers of tantalum and niobium materials, with manufacturing and sales locations all around the globe. Primarily driven by TANIOBIS, we contribute to evolution of the IoT/AI society through stable provision of such products as metal powders used in capacitors and semiconductor materials, high-purity oxides for SAW devices and optical lenses, chlorides and compounds, and superalloy additives.



JX Nippon Mining & Metals Corporation
Senior Executive Officer, General Manager, Tantalum and Niobium Division
General Manager, Administration Dept., Tantalum and Niobium Division
Senior Executive Engineer, Technology Group
Iida Kazuhiko

Key Strategies

- In addition to strengthening the supply chain in stable procurement, etc. for raw materials and improving productivity and quality in our existing businesses, strengthen our customer-focused business model
- Generation of items and acceleration of commercialization in new businesses for the expansion of our business foundations

Review of Fiscal 2021

Product sales of high-purity tantalum powder for capacitors and high-purity tantalum powder for sputtering targets for semiconductors, a mainstay existing business, continued firm performance in fiscal 2021 due to the evolution of the IoT/AI society and increasing stay-at-home demand.

In order to meet the steady growth in demand for its products, TANIOBIS decided to invest in the expansion of its high-purity tantalum powder production facilities at its production site in Thailand, significantly increasing capacity. In addition, we aimed to expand our global market share through a number of activities. These included efforts to realize a raw material procurement portfolio that is resilient to supply and demand fluctuations, price fluctuations, and risk, and actions promoting the Customer First Project, in which sales, R&D, and manufacturing work in unison to develop a customer-focused business model in order to respond quickly and accurately to customers’ technological needs. In new business development, in order to expand our business foundations, we have been promoting initiatives targeting product development and the creation of synergies through close collaboration with Group companies and others, and are steadily generating results toward the launch of new products.

TOPICS

Investing in Greater High-Purity Tantalum Powder Production Capacity

In order to meet strong demand for high-purity tantalum powder, TANIOBIS decided to invest in expanding production facilities in Thailand, significantly boosting capacity at its plant there. TANIOBIS will also strengthen its quality control system by establishing a new analysis building, as well as reinforce its development system to promptly respond to customer needs by installing new development and prototyping facilities. These facilities are scheduled to launch in sequence toward full operation by 2025. Going forward, we will continue to provide a stable supply of high-purity tantalum powder to meet market expectations.



TANIOBIS's Thailand plant

Outlook for Fiscal 2022

Given that demand is expected to continue growing for the achievement of IoT/AI society, we expect demand to remain strong for our mainstay products of high-purity tantalum powder for capacitors and sputtering targets for semiconductors. Under these circumstances, we will work to attain even stronger competitive advantage by promoting customer sales activities that integrate sales and technology to further expand its market share and to optimize the product mix and reduce costs at each site, as well as by promoting the stable procurement of raw materials.

Furthermore, we made tantalum and niobium smelter Tokyo Denkai Co., Ltd. into a wholly owned subsidiary in April 2022, strengthening the vertically integrated supply chain. We will also promote activities to realize synergies in minor metals domains, especially niobium, through collaboration with TANIOBIS and other Group companies.

Titanium Business

Titanium, a light, strong metal resistant to corrosion, has wide-ranging uses, from aircraft to desalination plants, electric power plants, and other applications. Group company Toho Titanium Co., Ltd. is engaged in the smelting of titanium, and leverages related materials and technologies to manufacture such products as catalysts (for propylene polymerization) and chemicals (e.g. materials for electrodes and dielectrics in multilayer ceramic capacitors).



Toho Titanium Co., Ltd.
President & Representative Director, Chief Executive Officer
Yamao Yasuji

Key Strategies

- Strengthening revenue base by focusing investment in growth fields
- Rapidly generating revenue from the Saudi Arabia joint venture firm (ATTM)
- Generation and promotion of new businesses

Review of Fiscal 2021

In the Titanium Business, demand recovered for aircraft applications after a sharp drop amid the COVID-19 pandemic, and there were also signs of recovery in demand for general industrial applications. Alongside solid demand for semiconductor applications, sales increased substantially from the previous fiscal year. However, with regard to profits, costs rose sharply due to soaring costs of raw material copper concentrates, secondary materials, and transportation costs, which continued to put significant pressure on margins. Sales in the catalyst business increased year on year due to strong demand for catalysts for propylene polymerization, a mainstay product. In the chemicals business, sales of our mainstay product of multilayer ceramic capacitors (MLCC), a major application for nickel powder, recovered from a COVID-19 pandemic-driven decline in demand, and sales were significantly higher than the previous year due to increased 5G communications and automotive-related demand.

Outlook for Fiscal 2022

In the Titanium Business, demand for high-purity titanium for general industrial applications and semiconductor applications is also expected to remain strong, as demand continues to increase on the back of the ongoing recovery in demand for aircraft applications, in addition to replacement demand in response to the impact of Russia’s invasion of Ukraine on the supply chain. Since our titanium sponge facilities at sites in Japan are already utilizing nearly all of their production capacity, we will cope with the increase in demand by raising the production volume of our affiliated company, a titanium sponge manufacturing joint venture in Saudi Arabia. In the catalyst business, we expect demand for polypropylene to remain strong, and sales volume is expected to increase with the start of operations at a new plant in November 2022. In the chemicals business, though the current demand for MLCC is in a temporary adjustment phase due to the semiconductor shortage and buildup of distribution inventories, we expect this to gradually dissipate and the business to return to a growth trajectory.

TOPICS

Boosting Capacity with the New No. 4 Nickel Power Plant

Nickel powder is used as an internal electrode material in multilayer ceramic capacitors (MLCC). Demand for nickel powder is increasing along with the growing demand for MLCC due to the increasing sophistication of electronic devices, advance of IoT, greater use of electrical equipment in automobiles, and the practical application of 5G. At Toho Titanium Co., Ltd., we built the new No. 4 nickel powder plant at the Wakamatsu Plant to strengthen the product’s supply structure for use with low- and high-capacity MLCC, for which demand is expected to grow. Looking forward, we will target growth that beats the market.



New nickel powder plant at Wakamatsu Plant