



February 14, 2024

“Development of MOCVD Equipment for GaN-based Power Semiconductors on Si Substrates with Excellent Productivity” Adopted as a NEDO Project

Taiyo Nippon Sanso Corporation (President: Kenji Nagata; hereinafter “TNSC”), a Japanese industrial gas business company in the Nippon Sanso Holdings Group, in collaboration with the Innovation Center for Multi-Business of Nitride Semiconductors of Nagoya Institute of Technology (President: Takatoshi Kinoshita), applied to the additional call for the Program to Develop and Promote the Commercialization of Energy Conservation Technologies to Realize a Decarbonized Society (for FY2023) by the New Energy and Industrial Technology Development Organization (NEDO) with their program “Development of MOCVD equipment for GaN-based power semiconductors on Si substrates with excellent productivity.” The proposal was recently accepted.

In this proposal, TNSC aims to contribute to a decarbonized society by developing a MOCVD equipment that can stably supply GaN/Si epi substrates with high electrical energy conversion efficiency. Through collaboration with Nagoya Institute of Technology, TNSC will develop elemental technologies to reduce surface defect densities and technology for crystal growth with excellent mass productivity. In addition, TNSC will introduce new analysis and prediction technologies based on machine learning, aiming to complete one of the world’s largest next-generation mass-produced MOCVD equipment with improved energy savings. Through this development, TNSC will contribute to the realization of a decarbonized society and the revitalization of domestic industries.

【Company Overview】

Taiyo Nippon Sanso Corporation

Business description: Manufacture and sale of various industrial gases such as oxygen, nitrogen, argon, LP gas, gas for medical uses, and specialty gases, manufacture and sale of welding equipment and materials, gas-related devices, and, air separation equipment, assembly, processing, inspection of electrical components, and equipment maintenance

Established: October 30, 1910

Incorporated: February 4, 2020

Capital: 1.5 billion yen

Shareholder: Nippon Sanso Holdings Corporation (Investment ratio: 100%)

Revenue: 420.4 billion yen*

*Note: This figure shows the revenue of Japan for Nippon Sanso Holdings Corporation in FYE2023

Taiyo Nippon Sanso Corporation

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