April 20, 2022

Taiyo Nippon Sanso Ga_2O_3 MOCVD System Installed and Qualified for Operation at Tokyo University of Agriculture and Technology

Taiyo Nippon Sanso Corporation ("TNSC", President: Kenji Nagata) announces that it has installed its first Ga_2O_3 MOCVD system in the laboratory of Professor Yoshinao Kumagai at the Tokyo University of Agriculture and Technology.

1. Background

β-gallium oxide (β-Ga_2O_3) is attracting attention as a semiconductor material for next-generation power (and energy efficient) devices. In October 2020, TNSC and Tokyo University of Agriculture and Technology started joint research on β-Ga_2O_3 thin film growth by MOCVD method, and in March 2021, announced the successful MOCVD growth of β-Ga_2O_3. TNSC's newly designed Ga_2O_3 MOCVD system will make it possible to fabricate complex device structures and further stimulate research and development of these materials.

TNSC will continue to enhance its Ga_2O_3 MOCVD technology to enable better energy efficient semiconductor technology to promote its company mission and to support the realization of a carbon-neutral society.

2. Outline of MOCVD system

- Process Capability: 1 × 2-inch wafer
- Model: FR2000-OX
- Features: MOCVD growth chamber for high purity and high-speed growth of oxides on β-Ga_2O_3 substrates to meet the needs of thick film and alloy growth for research of high performance electronic devices.

FR2000-OX

Reactor Chamber

Taiyo Nippon Sanso Corporation

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