Researchers Install AIXTRON MOCVD for GaN-on-Si Power Device R&D

National Central University (NCU) in Taiwan will use an AIXTRON metal-organic chemical vapor deposition (MOCVD) [1] system to research gallium-nitride-on-silicon (GaN-on-Si) power semiconductors [2].

An existing AIXTRON customer, NCU installed a 1 x 6” AIXTRON Close Coupled Showerhead MOCVD system. They will grow GaN epitaxial structures on 6” silicon substrates, which will be used in R&D of power management devices.

AIXTRON’s local support team installed and commissioned the new reactor in the state-of-the-art cleanroom facility at NCU’s Microwave and Optoelectronic Devices Laboratory.

“Demand for low-cost GaN-based power devices in high-efficiency and high-power systems continues to increase. To satisfy this need, we therefore plan to transfer our specially developed semiconductor materials technology to industry, for a pilot initially, and then for large-scale production,” said Professor Jen-Inn Chyi, Chair Professor of Electrical Engineering at the National Central University of Taiwan. The team selected the AIXTRON multi-wafer MOCVD system for the hetero-epitaxial growth of GaN structures on large area silicon wafers to develop high-performance devices as cost-efficiently as possible.

The National Central University (NCU) of Taiwan offers research and academic excellence with cooperative education programs and research projects, cutting-edge research and innovative learning. NCU research programs are wide ranging and include complex systems, liquid-crystals, neural networks, phonon and photon lattices, semiconductors, magnetic thin-films and superconductivity.

AIXTRON provides MOCVD production technologies for semiconductor devices, such as LEDs, lasers, transistors and solar cells. For further information on AIXTRON (FSE: AIXA, ISIN DE000A0WMPJ6, DE000A1MMEF7; NASDAQ: AIXG, ISIN US0096061041), see www.aixtron.com [3].

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