



New SiC 6-inch Line Now on Operation at TIA Power Electronics Research Platform

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National Institute of Advanced Industrial Science and Technology (AIST) and Sumitomo Electric Industries, Ltd. (Sumitomo Electric) have completed the construction of a new production line that enables large-scale production of silicon carbide (SiC) power semiconductor devices and commenced its operation at the TIA Power Electronics Research Platform. This is the world-first open-innovation center to realize processing of 6-inch wafers.

Since November 2015, AIST and Sumitomo Electric had worked jointly to build the line. To advance one step beyond basic research, the facility enables the development of technologies for production of world-leading SiC power semiconductors, reliability evaluation, and quality assessment, and is expected to promote industry-wide innovation through practical application and widespread use of SiC power semiconductors.

Utilizing the new line, one of the most advanced lines in the TIA Power Electronics Research Platform, AIST and Sumitomo Electric continues state-of-the-art developments toward the future. The facility will also be functioning as a platform widely available to create new power electronic industries.

< Outline of the line >

Name: SiC 6-inch substrate line at the TIA Power Electronics Research Platform
Location: AIST Tsukuba West, Unit 7th Group (Super Clean Room Facility)
Area: 1500 m² (clean room) and 1500 m² (utility zone)

Specifications: Production trial line for 6-inch SiC power semiconductor devices