



2019

报告人： Dr. Naoto Fujishima, the Chief Expert of Development Division in the Electronic Devices Business Group in Fuji Electric

报告时间： 9:00am to 12:00am on June 25th, 2019

报告地点： 电机楼 408

报告内容： Process Technologies for Power Devices (半导体工艺制备技术系列讲座之一)

Abstract

This lecture will focus on process technologies which is used for providing power semiconductor devices. As introduction, power electronics supported by power devices are introduced as the key technologies for realizing sustainable societies. Then feature of power devices is compared with one for LSI, followed by overview of a general semiconductor process flow. Next, individual process, deposition, modules, such as cleaning, oxidation, diffusion, ion-implantation, and their principles, planarization and thinning a wafer are introduced by explaining the technology trend and process flow as well as configuration of equipment. Finally, technology of the process of an IGBT are demonstrated, as an application example technologies.

Biography of Speaker

Dr. Naoto Fujishima received B.S. degree in Electronic Engineering from Hokkaido University, Japan, in 1985. After the graduation, he joined Fuji Electric in power devices for power devices. He received M.S. and Ph.D. degrees in 1998 and 2003, respectively, both from the University of Toronto, Canada. He is a Chief Expert of Power Semiconductor Division in the Electronic Device Development Business Group in Fuji Electric. His current responsibilities include development of silicon and silicon carbide power devices.

Dr. Fujishima is a board member of PCIM-Asia and a technical committee member of ISPSD.

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