The Japan Society of Applied Physics (JSAP)
Advanced Power Semiconductors Division
The 28th Research Meeting (ADPS)

先進パワー半導体分科会
Advanced Power Semiconductors

"Current Status of SiC and GaN Power Devices and New Substrate Processing Technologies"

Friday, March 7, 2025, 12:30 - 16:00
Makuhari Messe, International Conference Hall, Medium Conference Room 201

Understanding crystal defects inside semiconductors is crucial for achieving high performance in power devices responsible for power conversion. In many cases, crystal defects cause deterioration of device characteristics and a decline in reliability. However, by deeply understanding defect physical properties and their origins of introduction, it is conversely possible to utilize defects to control material properties, ultimately leading to performance improvements. In this research meeting, experts on defects in various materials currently used in power devices, or expected to be commercialized in the future, will give lectures to deepen our understanding through cross-material discussions.

[Program]

12:30 - 12:35 Opening Remarks

12:35 - 13:05 Current Status and Future Development of SiC Power Semiconductors

Yasunori Tanaka (National Institute of Advanced Industrial Science and Technology / AIST)

13:05 - 13:35 Current Status and Future Development of GaN Vertical Power Devices

Jun Suda (Nagoya University)

13:35 - 13:45 Break

13:45 - 14:15 Development of High-Speed Polishing Equipment for SiC Wafers

Chuichi Miyashita (Fujikoshi Machinery Corp.)

14:15 - 14:45 Wire Saw Cutting Technology and New Planarization Technology for SiC

Yoshitaka Inui (Yasunaga Corporation)

14:45 - 14:55 Break

14:55 - 15:25 Atomic-Level Planarization of SiC and GaN Substrate Surfaces by Catalyst-Referred Etching

Daixue Teng (Osaka University)

15:25 - 15:55 High-Efficiency Smoothing of SiC by Environmentally Friendly Electrolyte-Assisted Polishing Using Solid Electrolyte

Junji Murata (Ritsumeikan University)

15:55 - 16:00 Closing Remarks

[Registration and Information]

■ Registration: Please register and pay the registration fee online via the WEB Registration System ([click here*]). Since seats are limited, registration may close early. The materials for the day will be in PDF format.
*If this notice is printed, please access: http://annex.jsap.or.jp/adps/pdf/kenkyuukai28.pdf

■ [IMPORTANT]: Advance visitor registration for the "SiC and GaN Processing Technology Expo 2025" ([click here]) is required separately. (Advance registration via the Internet is free).

■ Participation Fee (Tax included):

Advanced Power Semiconductors Division Members*: 4,000 yen

Division Student Members: Free

General: 6,000 yen

General Students: 1,000 yen
*Employees of Supporting Members of the Advanced Power Semiconductors Division will be treated as Division Members.

■ COVID-19/Health Notice for On-site Attendance: Please refrain from attending on the day if you have a fever. Wearing a mask at the venue is optional.

[Contact Information]

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