

Japan Society of Applied Physics, Advanced Power Semiconductor Subcommittee
26th study session

"Power semiconductor basics that you can't hear about now"

Date and time: Thursday, October 26, 2023, 10:00-18:00 (Lecture video will be streamed online at a later date)

Location: Nagoya University Higashiyama Campus ES General Building 1F ES Hall

Furo-cho, Chikusa-ku, Nagoya City 1 minute walk from Nagoya University Station on the Meijo Subway Line

Power semiconductor devices are extremely important components that determine the efficiency, size, and weight of power equipment. Research and development aimed at improving this ability is being vigorously pursued. In the process of device development, the characteristics as designed are There are many problems such as not being able to obtain the desired performance, and in some cases, the elements not working. I encountered such a situation In order to truly understand the evaluation results, it is essential to have a fundamental understanding of semiconductor physical properties and operating principles. Even if you have studied about conductors once, there are many people who are unsure whether they understand everything accurately. Is it not?

This time, we will teach you the basics of power semiconductors from instructors who are active at the forefront of the power semiconductor industry. Please explain it easily. Would you like to solve the problem of "I'm too embarrassed to ask now..."?

We are especially looking forward to the participation of students and young engineers.

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9:30 Opening

10:00-10:10 Opening remarks, explanation of today's progress
10:10-12:00 Semiconductor basics/pn junction theory

Jun Suda (Nagoya University)

12:00-13:00 Break

13:00-14:30 MOS structure principle and characteristic evaluation

Takuji Hosoi (Kwansei Gakuin University)

14:30-14:40 break

14:40-16:10 Metal/semiconductor interface

Yasuo Koide (National Institute for Materials Science)

16:10-16:20 Break

16:20-17:50 Basics of high electric field phenomena

Takuya Maeda (University of Tokyo)

17:50-18:00 Closing remarks
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• Participation registration: Please register and pay the participation fee using the online registration system (click here*).

• About post-distribution: All those who have registered to participate will receive a lecture video for a limited time at a later date (lecture portion only, no Q&A).

will be distributed on the web. Please select at the time of registration whether you will be participating locally. (Please note that the number of seats is limited, so please visit us on-site.)

There is a possibility that the application deadline for Canada will be closed earlier)

• Participation fee: (consumption tax included)

Advanced Power Semiconductor Subcommittee Student members free, general students 1,000 yen,

Advanced Power Semiconductor Subcommittee members* 4,000 yen, general 6,000 yen

*If you are a supporting member of the Advanced Power Semiconductor Subcommittee, you will be treated as a member of the Advanced Power Semiconductor Subcommittee.

• Request for your cooperation during the on-site event: If you have a fever, please refrain from attending the on-site event on the day of the event. Ma at the venue

Wearing a mask is optional.

• Contact information:

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