



“Current status and challenges of high-temperature operation integrated circuit development”

☎ Date and time: March 10, 2022 (Thursday) 13:30-17:10

☎ Venue: Online event via Zoom

One of the characteristics of wide-gap semiconductors is high-temperature operation, and we are researching and developing high-temperature operation integrated circuits that take advantage of this characteristic. is in progress. In realizing high-temperature operation integrated circuits, the optimal materials and device structures have not yet been determined, and temperature characteristics and reliability cannot be determined. A comprehensive study that takes into consideration gender, etc. is necessary. In this discussion, we will refer to findings from silicon high-temperature devices and discuss We will have lectures from experts in a wide range of fields, and a lively discussion will take place with topics provided by the participants.

.....program.....●●●●●●●●●●Opening greetings

13:30-13:35

Formation of high-temperature analog operational amplifier circuit using SOI-CMOS and leakage compensation technology 13:35-14:05

Hidekuni Takao (Kagawa University)

Issues in high-temperature operation of Si-based integrated circuits and power devices (tentative) 14:05-14:35

Katsumi Eiji (Renesas Electronics)

Development of FPGA using atomic switch and its high temperature operation

14:35-15:05

Munehiro Tada (Nano Bridge Semiconductor)

Break

15:05-15:20

Development of SiC-JFET with high heat resistance and radiation resistance

15:20-15:50

Yasunobu Tanaka (AIST)

High-temperature operation of SiC MOSFET integrated circuits and SiC/metal interface reliability 15:50-16:20 Shinichiro Kuroki

(Hiroshima University)

break

16:20-16:35

General discussion

16:35-17:10

Closing remarks

17:10-17:15

☎About participation: Unlike traditional discussion groups, this individual discussion group is open to those who are not related to the topic. discussion Please understand that due to the nature of the conference, we may ask participants for their opinions and statements.

☎Participation registration: Please register and make payment using the online registration system (click here\*). Deadline **February 24th (Thursday)**

\*If this guide is in print, please access it from the link below.

[https://eventpay.jp/event\\_info/?shop\\_code=5777077842503786&EventCode=P121780889](https://eventpay.jp/event_info/?shop_code=5777077842503786&EventCode=P121780889)

☎Participation fee: (consumption tax included)

Advanced Power Semiconductor Subcommittee members\* 2,000 yen, Subcommittee student members 1,000 yen, General 4,000 yen, General students 1,000 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.

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