

Symposium (Oral) | Symposium : Plasma direct bonding technology for next-generation semiconductor and new device manufacturing

📅 Tue. Sep 17, 2024 1:30 PM - 7:00 PM JST | Tue. Sep 17, 2024 4:30 AM - 10:00 AM UTC 🏨 C41 (Hotel Nikko 4F)

## **[17p-C41-1~11] Plasma direct bonding technology for next-generation semiconductor and new device manufacturing**

Kenji Ishikawa(Nagoya Univ.), Atsushi Tanide(SCREEN), Ryo Hiramatsu(Western Digital)

3:00 PM - 3:30 PM JST | 6:00 AM - 6:30 AM UTC

### **[17p-C41-5] Fast Atom Beam Source for Large-Diameter Wafer Bonding**

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Keywords : surface-activated bonding、fast atom beam source、Large-diameter wafer

Advanced wafer bonding technology employs surface-activated bonding using fast atom beams (FAB). To achieve uniform FAB irradiation over large areas, various innovations have been implemented, including modifications to the shape and distribution of the irradiation ports, the installation of multiple FAB sources, and the scanning of the FAB. This presentation will introduce efforts to achieve uniform FAB irradiation over large areas by utilizing plasma simulations to design new forms of FAB sources and by altering the electrode structures near the irradiation ports.

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