Santa Clara Valley Section
Chapters of

Call for Presentations – First Annual HBS ***(submit by Oct. 31)***

Two-day Hybrid Bonding Symposium

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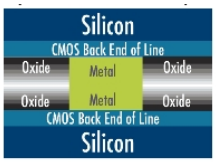
Theme: **Enabling Hybrid Bonding Commercialization**

16-17 January 2025 **Silicon Valley** at SEMI Headquarters, Milpitas, CA USA

*HBS'25 is planned to be a **hybrid event**, with both in-person and WebEx participation*



Hybrid Bonding has emerged as the technology of choice in the semiconductor industry for ultra-fine-pitch interconnection. With significant benefits for interconnect density and device performance, it will become widely adopted for a broad range of high-performance semiconductor devices in the years to come. The success of Hybrid Bonding technology for high-volume manufacturing depends critically on the process technology as well as materials and equipment. Design, performance characterization, thermal management and reliability are also important considerations to enable applications in various areas.

Proposals for presentations in the field of Hybrid Bonding are solicited, for either in-person or remote presentation, addressing the following technical areas:

Hybrid Bonding Process Technology

- Process fundamentals
- Process characterization
- Process simulation and modeling
- Process optimization
- Metrology, quality control, and test/KGD

Materials for Hybrid Bonding

- Copper electrodeposition
- Inorganic and polymeric dielectrics

Application Areas

- Memory, Compute, CMOS, Photonics, MEMS
- Heterogeneous integration

Equipment Technologies and Platforms

- Planarization for Hybrid Bonding
- Die to wafer bonding
- Wafer to wafer bonding

Design for Hybrid Bonding and Chiplets

- Design considerations and EDA tools
- Thermal management for advanced 3DIC systems
- Performance characterization (electrical, thermal) of Hybrid Bonding interconnects
- Reliability Test, KGD sorting for Hybrid Bonding
- Applications of Hybrid Bonding and chiplets for heterogeneous integration

Abstracts or proposals should include a title and a summary of **200-500 words** with one or two optional figures or diagrams, clearly showing the relationship of the talk to the topics/theme of the Symposium. Acceptance of proposed presentations will be announced by **20 November 2024**. Most presentations will be 30 minutes long, supplemented by keynotes and invited talks. **No formal paper will be due**. You may email your proposal to Hualiang Shi, HBS Program Chair, at hualiang.shi@ieee.org.

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