



Advanced Metallization Conference 2023: 32<sup>nd</sup> Asian Session

October 11 - 13, 2023: Online-Onsite Hybrid Conference

Sponsorship by the Japan Society of Applied Physics

The ADMETA<sup>Plus</sup> is heading for the 32<sup>nd</sup> annual meeting and has a long history of important contributions to state-of-the-art interconnect progress for advanced logic and memory devices. In recent years, the importance of interconnect technology for realizing low resistance, large integration, low cost, high reliability, and 3D-ICs is increasing more and more in various device applications.

This conference focuses on interconnects technology related to materials, processes, device, circuit design, assembly, equipment, and characterization. We will conduct comprehensive discussions widely from basics to applications with researchers and engineers from industry, government, and academia. We are looking forward to new developments in interconnect technology fields and contributing to the growth of semiconductor industry.

The ADMETA<sup>Plus</sup> 2023 Theme is "Interconnection from material to VLSI system for a Sustainable Development." Based on the conference theme, I plan to have appealing contents, including tutorial (Japanese only), plenary talks, invited talks and poster session. I would like you and your colleagues to submit the contributed papers in wide range of aspects in interconnects area. I am looking forward to seeing you in Tokyo.

ADMETA<sup>Plus</sup> 2023 General Chair: Munehiro Tada (NanoBridge Semiconductor, Inc.)

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★Conference Topics of Interest

Integration: Interconnection Structure and Performance, Parasitic Capacitance, Reliability Technology, Testing and Analysis

Reliability Science and Failure Analysis: EM, SIV, TDDDB, Defect Detection and Analysis, Failure Mechanism and Modeling

Metallization: PVD, CVD, ALD, Plating, Barrier Metal, New Material, Alloy, Supercritical Fluid, Reflow

Low-k Dielectric: CVD, ALD, SOD, Film Properties, New Materials, Dielectric Structures (Air Gap), Metrology, etc.

CMP: Planarization Technology, Slurry, Pad, Dress, End Point Detection, Cleaning, Anti-corrosive Technology, etc.

Contact: Silicide, Interface, Solid Phase Reaction, Shallow Junction, Crystal Properties, Electron Properties, Carrier Transport, etc.

MEMS/RF: Interconnection Structure and Materials, Packaging, Fabrication Process Technology, Device Design, etc.

Emerging Technology: Active Wiring, Power Electronics, Silicon Photonics, Flexible Electronics, Energy Harvesting, etc.

Backend Device Technology: Tech. for Embedding Devices (MRAM, PCRAM, ReRAM, DRAM etc.), Materials and Processing of Magnetics, Phase-Change and Resistive-Change Devices, Electrode, Metallization, etc.

Nano Carbon: Graphene, CNT, Deposition, Integration, Electrical Characteristics, Reliability, Evaluation, Analysis, etc.

3D and Packaging: TSV, TMV, Stacking Method (CoW, WoW), Thinning, Planarization, Bonding, Bump, Stress and Thermal Analysis, Sealing, Cooling, Reliability.

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★ To Apply:

Prepare an abstract per the directions below and submit it to the ADMETA<sup>Plus</sup> 2023 Secretariat;

A4 format, up to 2 pages, figures and tables are recommended but not required,

Oral [15 min. talk & 5 min. QA] or Poster [TBD], Abstracts are due June 30, 2023.

Prospective authors must submit a PDF file up to 2 pages with necessary figures and tables. Send the PDF file of the manuscript, the subject of your paper (please choose from the Conference Topics of Interest), and desired presentation style (Oral or Poster) to the secretariat office via e-mail. On the abstract, please indicate the author to whom correspondence should be addressed, and include mailing and e-mail addresses. A template of abstract can be downloaded from the ADMETA<sup>Plus</sup> 2023 website. Notification of acceptance will be made to the authors by August 31, 2023. Upon notification, authors will be requested to confirm their participation in the conference.

The accepted abstracts will be included in the on-line conference proceedings, which the participants will receive on site at the registration desk of ADMETA<sup>Plus</sup> 2023. Pre-registered participants will also be able to download the accepted abstracts from the ADMETA<sup>Plus</sup> 2023 webpage after Oct. 4, 2023.

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http://www.admeta.org/

# ADVANCED METALLIZATION

## ★ Special Issue of JJAP

Authors with papers presented at ADMETA<sup>Plus</sup> 2023 are encouraged to submit their original manuscripts to a Special Issue of the Japanese Journal of Applied Physics (JJAP) dedicated to the ADMETA<sup>Plus</sup> 2023. The deadline for submitting the Special Issue is scheduled around **November 2023**. The manuscript will be reviewed based on the JJAP standard for an original paper. JJAP Special Issues are accepting regular papers (RP), brief notes (BN), and reviews (RV), and will be published in July, 2024.

## ★ Reminder

As the papers of the Special Issue will be the original papers, please be careful not to post the same contents to any other journals.

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## Conference Topics: Oct.12-13, 2023 (in English)

### ★ General Sessions

- 1) Advanced Integration and Process
- 2) Advanced Metallization
- 3) CMP and Cleaning
- 4) Emerging Technologies (STT-MRAM, ReRAM)
- 5) Next Generation Interconnect (Carbon, Optical Interconnect etc.)
- 6) Thin films and Dielectrics
- 7) 3D Device, TSV and Packaging

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## Tutorial Topics: Oct.11, 2023 (in Japanese )

### ★ Tutorial

- 1) CVD/ALD
- 2) Etching
- 3) CMP
- 4) Material Trend
- 5) BEOL Integration and Metallization
- 6) Memory (DRAM or NAND)
- 7) Semiconductor Market Trend
- 8) 3D Packages
- 9) Artificial Intelligence

\*Full list of the invited speakers and tutorial lecturers will be announced later.

**\*\*Official language of the Tutorial Lecturers is Japanese.**

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## ★ Contact: ADMETA<sup>Plus</sup> 2023 Secretariat

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[Notice from the executive committee] ADMETA<sup>Plus</sup>2023 is a conference dealing with advanced interconnection technology, and this year marks the 32<sup>nd</sup> time. We are currently planning to hold a hybrid conference. Previously, the abstracts were basically posted on two pages, but now it is possible to post on one page. Even if the space is small, please include figures that show the characteristics and originality of your research as much as possible.

In addition, the tutorial in Japanese on advanced LSI wiring technology is also very popular every year. It is used as a place to educate students and young engineers, or as a place for updating the latest information. We sincerely look forward to your contributions and participation

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