Call for Papers

ADMETA^{Plus} 2016

Advanced Metallization Conference 2016: 26th Asian Session

Oct. 19 - 21, 2016
The University of Tokyo, Yayoi Auditorium, Ichijo Hall (Hongo Campus), Tokyo

Sponsorship by ADMETA Committee

Co-sponsorship by the Japan Society of Applied Physics

Support (under arrangements) by The Surface Finishing Society of Japan, The Institute of Electrical Engineers of Japan, The Japan Society for Precision Engineering, The Institute of Electronics, Information and Communication Engineers, The Japan Institute of Metals, IEEE EDS Japan Chapter, The Vacuum Society of Japan, The Surface Science Society of Japan.

Advanced Metallization Conference 2016, 26th Asian Session (ADMETA^{Plus} 2016) will be held in October, 2016. ADMETA has its 26-year history of a conference on the state-of-the-art interconnect technology which has contributed considerably on the development of integrated circuits including MPUs, DRAMs and Flash memories. Reliability issues in Low-k / Cu interconnect is still of great importance to meet the demand for high-density interconnect in future ULSIs, and therefore, emerging nano-carbon materials, air-gap technologies, as well as backend devices like MRAMs and ReRAMs embedded in interconnect layers are currently developed. Packaging is also facing to the down scaling of form factor and thus new interconnects bridging from silicon chips and PCB is required. In particular, 3D interconnect technologies based on TSV is attracting much attention as a promising future technology. ADMETA will focus on process, design, reliability, production tool, material and cost-reduction technologies, and discuss both scientific and engineering approaches to solve those issues. The conference is organized to stimulate and enhance the research and development of ULSI interconnect technology. In every year since 1989, the conference has been held at about the same time in both Japan (ADMETA) and USA (AMC), and ADMETA has showcased remarkable interconnect technology development in Asia.

ADMETA^{Plus} 2016 General Chair: Takenao Nemoto (Tokyo Electron)
ADMETA^{Plus} 2016 Program Chair: Shinji Yokogawa (The University of Electro-Communications)

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Session Categories

Integration: Structure, Performance, Resistance, Capacitance, Evaluation, Analysis, etc.

Reliability Science and Failure Analysis: EM, SIV, TDDB, Measurement, Evaluation, Defect Inspection, Yield Improvement, Process Dispersion Modeling, etc.

Metallization: PVD, CVD, ALD, ECD, Barrier Metal, Nucleation Layer, Seed Layer, Alloy, Supercritical, New Materials, etc.

Low-k Dielectric: CVD, ALD, SOD, Porous Films, New Materials, Adhesion, Interface Reaction, Air Gap, Evaluation, 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, Parasitic Resistance, etc.

MEMS/RF: Structure, Materials, Packaging, Deposition Tech., Etching Tech., CMP, Electroplating, Switch, Inductor, Varactor, Resonator, Transmission Line, etc.

Emerging Technology: Active Wiring, Memristor, Sensor, Electronic Luminescence, Silicon Photonics, Power Electronics, Flexible Electronics, Energy Harvesting, etc.

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

Nanocarbon: Graphene, Carbon Nanotube, Deposition, Growth, Integration, Electrical Characteristics, Reliability, Evaluation, Analysis, Doping, etc.

3D and Packaging: TSV (etching, CVD, PVD, plating, CMP, etc.), stacking technologies (COW, WOW), Thinning, Planarizaiton, Flattening, Bonding, TMV, Bump, Stress Analysis, Thermal Management, Individuating, Redistribution Layer, Sealing, Cooling, Reliability, Test and Inspection, etc.

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Conference Keynote Speakers

1) Hanming Wu （SMIC consultant, China Semiconductor Technology International Conference (CSTIC) 2016 chairman）
2) Taku Umebayashi (Sony Semiconductor Solutions)

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Conference Invited Speakers

1) Naohito.Suzumura (Renesas Electronics) [Automotive reliability]
2) Tamotsu Hashizume (Hokkaido University) [Passivation of GaN device]
3) Jeff Gambino（On Semiconductor） [Advanced Metallization]
4) Chao-Chang A. Chen (National Taiwan University of Science & Technology) [Wafer Processing and Planarization]
5) Tadashi Sakai (Toshiba) [Nano Carbon Interconnect]
6) Byoung-Joon Kim (KIMS) [3D Device and Packaging]
7) Chopin Chou (UMC) [Process Integration]

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Tutorial Program

1) BEOL Technology Revisited, What's for the next stages ? — Yoshihiro Hayashi (Renesas Electronics)
2) Mettalization — Kazuyoshi Maekawa (Renesas Semiconductor Manufacturing)
3) Chemical-Mechanical Polishing - Advances and Future Challenges — Yohei Yamada (SanDisk)
4) Insulating film — Fuminori Ito (Toshiba)
5) Trends in Semiconductor Market and Future — Yoshitsugu Yamamoto (Mizuho Securities)
6) Dry etching — Naoki Inagaki (Tokyo Electron)
7) Image sensor — Toshio Kato (Success International)
8) 3D Packaging — Jun Mizuno（Waseda University）

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★ **Dates:** **Tutorial 2016/10/19 (Wed) in Japanese**
Conference 2016/10/20 (Thu) - 21 (Fri) in English

★ **Location: The University of Tokyo, Yayoi Auditorium, Ichijo Hall (Hongo Campus)**
http://www.a.u-tokyo.ac.jp/yayoi/

★ **To Apply:** Prepare an abstract per the below directions and submit it to the ADMETA^{Plus} 2016 Secretariat

★ **Abstract Preparation and Submission:**

Abstracts are due: ~~July 1st, 2016~~ >> July 15, 2016

Prospective authors must submit a two-page PDF file with all figures and tables. Send the PDF file along with desired session category 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^{Plus} 2016 website. Notification of acceptance will be made to the authors by August 12, 2016. Upon notification, authors will be requested to confirm their participation in the conference.

The accepted abstracts will be included in the Extended-Abstract CD-ROM which the participants will receive on site at the registration desk of ADMETA^{Plus} 2016. Pre-registered participants will also be able to download the accepted abstracts from the ADMETA^{Plus} 2016 webpage after Oct. 15, 2016.

Authors with papers presented at ADMETA^{Plus} 2016 are encouraged to submit their original manuscripts to a Special Issue of the Japanese Journal of Applied Physics (JJAP) dedicated to the ADMETA^{Plus} 2016. The deadline for submission to the Special Issue is November 20, 2016. The manuscript will be reviewed based on the JJAP standard for an original paper. JJAP special issues are accepting regular papers and brief notes, and will be published in July, 2017.

※**Reminder:** As the proceedings will be the original papers, please be careful not to post the same contents to any other journals.

★ **Contact: ADMETA^{Plus} 2016 Secretariat**

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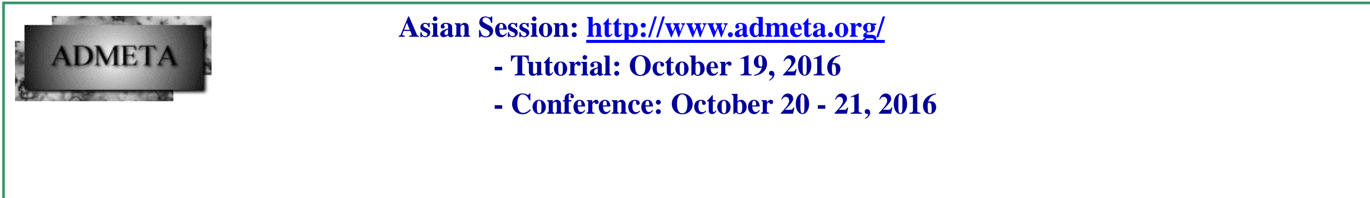

Asian Session: http://www.admeta.org/
- Tutorial: October 19, 2016
- Conference: October 20 - 21, 2016