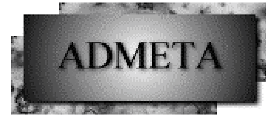
ADVANCED METALIZATION

Call for Papers

ADMETA Plus 2018



Advanced Metallization Conference 2018: 28th Asian Session
MAIP Joint Conference

Oct. 10th–12th, 2018 (Tutorial: Oct.10th, Conference: Oct.11th -12th)
Beijing International Convention Center, Beijing, China
Sponsorship by Chinese Academy of Science, North China University of Technology, ICTIA & ICMtia, and ADMETA Committee
Co-sponsorship by the Japan Society of Applied Physics

Advanced Metallization Conference 2018: 28th Asian Session (ADMETAplus 2018) will be held from October 10th in China for the first time and in conjunction with the 3rd International Workshop "Materials for Advanced Interconnects and Packaging" (MAIP).

The *ADMETAPlus* is heading for its 28th historical meeting, which is organized to stimulate and enhance the researcher and development of ULSI interconnect technology since 1989, and has a long record of important contributions to practical progress for advanced MPU and various memory devices. In recent years, the importance of interconnect technology for realizing low resistance, large integration, rich functionality, low cost, and high reliability has increased in various device application fields beyond silicon electronics. This conference will focus on interconnect technology and science related to materials, processes, device design, assembly, equipment, cost performance, and characterization. We will host comprehensive discussions on a wide range of topics, 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 the semiconductor industry in the Asian area. Now is the time for you to join us

ADMETAPlus 2018 General Chair: Tianchun YE (Chinese Academy of Science)
General Co-chair: Chao ZHAO (Chinese Academy of Science)
Xun GU (SanDisk Limited)
Ying SHI (ICTIA & ICMtia)
Program Chair: Mikhail BAKLANOV (North China Univ. of Tech.)

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Conference Topics of Interest

Low-k Dielectric: CVD, ALD, SOD, Film Properties, Interface Control, New Materials, Dielectric Structures (Air Gap), Selective Deposition as New Patterning Strategy, Surface Confined Activation of Low-k Materials, Metrology, etc.
Metallization: PVD, CVD, ALD, Plating, Barrier Metal, Seed and Nucleation Layer, Supercritical Fluid, Reflow
CMP: Planarization Technology, Slurry, Pad, Dress, End Point Detection, Cleaning, Anti-corrosive Technology, etc.
Integration: Interconnection Structure and Performance, Parasitic Capacitance, Reliability Technology, Testing and Analysis, Alterative Integration Approach based on Subtractive Approach, etc.
Reliability Science and Failure Analysis: EM, SIV, TDDB, Defect Detection and Analysis, Failure Mechanism and Modeling.
Contact: Silicide, Interface, Solid Phase Reaction, Shallow Junction, Crystal Properties, Carrier Transport, Parasitic Resistance, Nanocontact 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: Technology for Embedding Devices (MRAM, PCRAM, ReRAM, DRAM, etc.), Materials and Processing of Magnetics, Phase-Change and Resistive-Change Devices, Electrodes, Metallization, etc.
Nanocarbon: Graphene, Carbon Nanotubes, 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 etc.
Modeling and Simulation: Advanced Metallization and IC Thermal Management.

QR code to URL

http://www.admeta.org/

Conference Keynote Speakers

Dr. Peng Bai

Vice President
Technology & Manufacturing
Intel Corporation, USA

Dr. Meisheng Zhou

Executive Vice President
Technology Research and Development
SMIC, China

Preliminary list of Invited Speakers include:

1. **Prof. Larry Zhao**, Lam Research, USA: ***(Tentative) Overview of AMC/IITC 2018***
2. **Dr. Kang Sub Yim**, Applied Materials, USA: ***Black Diamond low-k applications for advanced logic and memory***
3. **Prof. Junichi Koike**, Tohoku University, Japan: ***New materials for BEOL and MOL metallization beyond 5nm node***
4. **Prof. Chih Chen**, National Chiao Tung University: ***(Tentative) Copper Metallization, especially nano-twinned copper***
5. **Prof. Maxime Darnon**, CEA LETI, France: ***Interaction of humidity with plasma-damaged porous low-k***
6. **Dr. Hyung Woo Kim**, GLOBALFOUNDRIES, USA: ***BEOL integration Challenges beyond 7nm***
7. **Dr. David Thompson**, Applied Materials, USA: ***(Tentative) Selective deposition***
8. **Dr. Yunlong Li**, imec, Belgium: ***Dielectric reliability in Wafer to Wafer interconnects***
9. **Prof. Z.D. Kvon**, Institute of Semiconductor Physics, Russia: ***Interconnects and topological insulators: myphs and reality***
10. **Dr. Ruth Shima-Edelstein**, TowerJazz, Israel: ***Back end integration in GaN foundry HV process***
11. **Prof. Mansun Chan**, The Hong Kong University of Science and Technology: ***Carbon Enhanced BEOL Technology***
12. **Prof. Kuan-Neng Chen**, National Chiao Tung University: ***(Tentative) 3D Packaging***
13. **Prof. Xia Xiao**, Tianjin University: ***Evaluation of adhesion forces by using surface acoustic waves***

Preliminary list of Tutorial Lecturers include:

1. **Prof. Tian chun Ye**, Chinese Academy of Science: ***(Tentative) Microelectronics in China***
2. **Dr. Kang Sub Yim**, Applied Materials, USA: ***Black Diamond: Low-k To Ultralow-k and Beyond***
3. **Prof. Maxime Darnon**, CEA LETI, France: ***Introduction to plasma etching of porous low-k films***
4. **Dr. Hitoshi Morinaga**, FIJIMI Incorporated, Japan: ***Semiconductor Wet Cleaning, CMP, and Contamination Control in Wet Process***
5. **Dr. Hyung Woo Kim**, GLOBALFOUNDRIES, USA: ***(Tentative) BEOL integration***
6. **Dr. Yunlong Li**, imec, Belgium: ***Backed-end-of-line Reliability: Metal migration and low-k breakdown***
7. **Prof. Kuan-Neng Chen**, National Chiao Tung University: ***(Tentative) Introduction into 3D Packaging***

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

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Executive Committee Members

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Jing Zhang (North China Univ. of Tech.)
Shuhua Wei (North China Univ. of Tech.)
Chao Zhao (Chinese Academy of Science)
Jun Luo (Chinese Academy of Science)

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★ **Abstract Preparation and Submission:** **Abstracts are due: ~~June 15, 2018~~ >> July 8, 2018**

Prospective authors must submit a two-page PDF file with all 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 for your abstract can be downloaded from the ADMETA*Plus* 2018 website. Notification of acceptance will be made to the authors by August 10, 2018. Upon notification, authors will be requested to confirm their participation in the conference.

Authors with papers presented at ADMETA*Plus* 2018 are encouraged to submit their original manuscripts to a Special Issue of the **Japanese Journal of Applied Physics (JJAP)** dedicated to the ADMETA*Plus* 2018. The deadline for submission to the Special Issue is November 15, 2018. The manuscripts will be reviewed based on the JJAP standard for an original paper. The JJAP Special Issue will accept regular papers (RP), brief notes (BN), and reviews (RV) and will be published in July, 2019.

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

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★ **Contact: ADMETA*Plus* 2018 Secretariat**

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