

Call for Papers

ADMETA 2010

Advanced Metallization Conference 2010: 20th Asian Session

Oct. 19 – 22, 2010, Takeda-Sentanchi Bldg., Hongo, The Univ. of Tokyo, Tokyo

Sponsored by Japan Society of Applied Physics

Supported by The Univ. Tokyo, 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 Japan Council, The Vacuum Society of Japan, The Surface Science Society of Japan.

Advanced Metallization Conference 2010, 20th Asian Session: ADMETA 2010 will be held from October 19 to 22, 2010. The conference is organized to stimulate and enhance the research and development of ULSI interconnect technology; and each year since 1989 the conference has been held at about the same time in both Japan and USA, and has showcased remarkable interconnect technology development in Asia. Current active development of Cu multilayer wiring technology is aimed at feature sizes of less than 50nm. Securing good reliability between barrier metal and low-k in Low-k/Cu wiring schemes has become an important topic. In addition, the application of Cu wiring has been broadened to the memory market and is widely used for Flash and DRAM. Moreover, there is advancement in the introduction of metal deposition for transistor surroundings such as for Silicide and Metal Gate, etc. The progress of miniaturization technology for packaging is rapid, and concepts for integrated wiring technology between Si chips and mounting substrates are requested. Contributions of papers are highly solicited addressing these topics, and related areas such as materials, interconnect design, reliability, equipment, and cost reduction, etc. where there is no shortage of problems to be solved.

In addition to the main conference, a **special session** will be held to address the challenges of **3-Dimensional interconnect technology**. In this session, panelist will discuss the current and forthcoming technologies.

This conference offers an excellent opportunity to learn about the most recent R&D activities in interconnect metal technology and related fields from around the world. Now is the time for you to join us.

ADMETA 2010 Chairman: Seiichi Kondo (Renesas Electronics)

ADMETA 2010 Program Chairman: Eiichi Kondoh (Univ. of Yamanashi)

★Conference Topics of Interests

Metallization: Metal CVD, ALD, PVD, Electroplating, Barrier Metal Films, Selective Deposition Technology, etc.

Interconnect & Dielectric Materials: Interconnect, Carbon Nanotube Wires, Contacts, Diffusion Barriers, Low-k, High-k, etc.

Materials Science of Thin Films, Surfaces and Interfaces: Thin Film Properties, Grain Properties, Surface and Interface Structure and Reaction, Diffusion Properties, etc

Reliability Science and Failure Analysis: Reliability Engineering, EM Evaluation, SIV Evaluation, Measurement Evaluation Technology, Defect Inspection, Yield Improvement, etc.

Planarization Technology: CMP, Pad/Slurry Technology, End Point Detection, New Planarization Technology, etc

Deposition Technology: New CVD Methods, ALD, PVD, Electroplating, Selective Deposition, High Temperature Deposition / Reflow, High Pressure Filling, etc.

Processing Science and Modeling: Deposition and Etching from Gases, Liquids and Solids, Process Modeling, etc.

Characterization: Porosimetry, Film Strength, Film Density, Film Adhesion Measurement, etc.

Process Integration Issues: Metal Gate, Silicide/Salicide, ILD Deposition and Planarization, Surface Cleaning/Treatments, Metal/Dielectric Etching, Barrier/Cu Interconnect Formation, Low-k Technologies.

Advanced Structures and Scaling Issues: DRAM, Flash, Automotive Device Interconnects, Printed Substrate Wiring, Interconnect Design, Interconnect Modeling, New Interconnect Construction Technologies, Airgap, Inductive Coupling, Wireless, etc.

System in a Package: Packaging/Mounting Technology, Bump Technology, Wafer Bonding, 3-D Stacked Chip Technology, etc.

Conference Keynote Speakers

- 1) Tsuyoshi Abe (Intel KK)
- 2) Naoki Yokoyama (Fujitsu Labs.)

Conference Invited Speakers

- 1) Satya V. Nitta (IBM)
- 2) Geraud Dubois (IBM)
- 3) Ara Philipossian (The Univ. of Arizona)
- 4) Ruth Brain (Intel)
- 5) Steven Demuynck (IMEC)
- 6) Noriaki Oda (Renesas Electronics)
- 7) Oliver Aubel (GLOBALFOUNDRIES)
- 8) Masato Sone (Tokyo Institute of Technology)

3-D special session Invited Speakers

- 1) Morihiro Kada (ASET)
- 2) Shin-Puu Jeng (TSMC)
- 3) Ming-Jer Kao (ITRI)
- 4) Riichiro Shirota (National Tsing Hua Univ.)
- 5) Tomoji Nakamura (Fujitsu Labs.)
- 6) Kuo-Chung Yee (ASE)

Tutorial Program

- 1) Cu/Low-k & Integration, Shun-ichi Fukuyama (Fujitsu Semiconductor)
- 2) Low-k, Tatsuya Usami (Renesas Electronics)
- 3) Dry etching techniques, Hisataka Hayashi (Toshiba)
- 4) Market trend, Wataru Izumiya (Sangyo Times)
- 5) Metallurgic approach to Cu wiring, Kazuhiro Ito (Kyoto Univ.)
- 6) CMP techniques, Hiroyuki Chibahara (Renesas Electronics)
- 7) Carbon nanotube, Tadashi Sakai (Toshiba)
- 8) Next-generation cellular phone and packaging, Hiroshi Okazaki (NTT docomo)

* Official language of the Tutorial Program is Japanese.

★ Dates: Tutorial
Conference

2010/10/19 (Tue) Japanese
2010/10/20 (Wed) - 10/22 (Fri) English
(3D special session ; 2010/10/22(Fri))

★ Location: Takeda-Sentanchi Bldg., Hongo, The Univ. of Tokyo

★ To Apply: Prepare an abstract per the below directions and submit it to the ADMETA 2010 Secretariat

★ Abstract Preparation and Submission:

Abstracts are Due: ~~June 18, 2010~~ >> July 2, 2010

Prospective authors must submit a two-page PDF file with all figures and tables. Send one original PDF file in a two-page format to the Secretariat office via e-mail. On the abstract, please indicate the author to whom correspondence should be addressed, and include mailing address and e-mail address. A template of abstract can be downloaded from the ADMETA website. Notification to the authors will be made by **the middle of August 2010**. Upon notification, authors will be requested to confirm their participation in the conference. Authors submitting to the US session from Asia are requested to submit the identical paper to the Asian Session. ADMETA will accept the identical papers submitted to the US session from non-Asian countries. In either case, the abstract should be sent to both Asian and US offices.

Authors with papers presented at ADMETA 2010 are encouraged to submit their original papers to a Special Issue of the Japanese Journal of Applied Physics (JJAP) dedicated to ADMETA 2010. The Special Issue will be published in May 2011. Submission to the JJAP Special Issue will take place after ADMETA Conference, currently scheduled for sometime in early November 2010. Authors with papers accepted for both the US and Japanese sessions should choose either AMC proceedings or JJAP Special Issue for publication (Note: these are published individually). If you wish to have your paper published in the AMC Proceedings please send your final paper to the US Session only. If you wish to have your paper published in JJAP Special Issue please send your final paper to the ADMETA Secretariat (Note: abstracts can be sent to both US and Asian Sessions).

★ Contact: ADMETA 2010: 20th Asian Session Secretariat <http://www.admeta.org>

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Asian Session: <http://www.admeta.org/>

- Tutorial : October 19, 2010

- Conference : October 20 – 22, 2010 Tokyo, Japan

(3D special session : October 22)

U.S. Session: <http://www.semtech.org/meetings/announcements/8964/>