

Call for Papers

ADMETA 2009

Advanced Metallization Conference 2009: 19th Asian Session

Oct. 19-21, 2009 at the Sanjo Conference Hall, The University of Tokyo

Sponsored by ADMETA Committee and Japan Society of Applied Physics-Silicon Technology Division
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 2009, 19th Asian Session: ADMETA 2009 will be held from October 19 to 21, 2009. 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, for the second year in a row, a special workshop will be held to address the problems of future interconnect technology. The theme of this year's workshop is "3-Dimensional Interconnect Technology".

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

ADMETA 2009 Chairman: Yukihiro Shimogaki (The University of Tokyo)

ADMETA 2009 Program Chairman: Seiichi Kondo (Selete)

ADMETA 2009 Public Relations Chairman: Nobuhiro Shimoyama (NTT MI Laboratories)

★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) Yukio Sakamoto (Elpida Memory) 2) Hans Stork (Applied Materials)

Conference Invited Speakers

- 1) Stefan Shultz (Chemnitz Univ. of Tech.) 2) Qinghuang Lin (IBM) 3) Martin Gall (Freescale Semiconductor)
4) David Lazovsky (Intermolecular) 5) Koei Suzuki (Ricoh) 6) Ara Philipossian (The Univ. of Arizona)
7) Shigeaki Zaima (Nagoya Univ.)

Tutorial Program

- 1) Cu/Low-k & Integration, Takeshi Furusawa (Renesas) 2) Cu Electroplating, Nobuki Hosoi (Selete)
3) Dry Etching, Keizo Kinoshita (NEC) 4) Cu Metallization & New Materials, Jun-ichi Koike (Tohoku Univ.)
5) Technical Writing of Science & Technology, Yoshimasa Ono (The Univ. of Tokyo)

* Official language of the Tutorial Program is Japanese.

Workshop Speakers

- 1) Nobuaki Miyakawa (Honda Research Institute Japan) 2) Hiroshi Yoshikawa (Toshiba)
3) Takayuki Ohba (The Univ. of Tokyo) * Official language of the Workshop is Japanese.

**★ Dates: Tutorial&Workshop 2009/10/19 (Mon) Japanese
Conference 2009/10/20 (Tue) • 10/21 (Wed) English**

★ Location: The University of Tokyo, Sanjo Conference Hall

★ To Apply: Prepare an abstract per the below directions and submit it to the ADMETA 2009 Secretariat.

★ Abstract Preparation and Submission:

Abstracts are Due: June 26, 2009 >> July 3, 2009

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.

Notification to the authors will be made by the end of July 2009. 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 2009 are encouraged to submit their original papers to a Special Issue of the Japanese Journal of Applied Physics (JJAP) dedicated to ADMETA 2009. The Special Issue will be published in May 2010. Submission to the JJAP Special Issue will take place after ADMETA Conference, currently scheduled for sometime in early November, 2009. Note that as in previous years, papers submitted to the US session will be published in the MRS proceedings. Authors with papers accepted for both the US and Japanese sessions should choose either MRS proceedings or JJAP Special Issue for publication. If you wish to have your paper published in the MRS 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 2009: 19th Asian Session Secretariat http://www.admeta.org
Akihabara Konoike Bldg 3F, Sakuma-cho 1-25, Chiyoda-ku, Tokyo 101-0025, Japan.
TEL: +81-3-5207-8812, FAX: +81-5207-8816, E-mail: jimukyoku@admeta.org**



**Asian Session: Tutorial, Workshop: October 19, 2009
Conference: October 20 – 21, 2009 Tokyo, Japan
http://www.admeta.org/**

**U.S. Session: October 12– 15, 2009 Baltimore, Maryland (in plan)
http://www.unex.berkeley.edu/eng/metal/**