

# Call for Papers

# ADMETA<sup>Plus</sup> 2011

**Advanced Metallization Conference 2011: 21st Asian Session**

**Sept. 12 – 15, 2011, Shibaura Institute of Technology (Toyosu Campus), Tokyo**

**Sponsored by Japan Society of Applied Physics**

Supported 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 Japan Council, The Vacuum Society of Japan, The Surface Science Society of Japan. (Tentative)

**Advanced Metallization Conference 2011, 21st Asian Session** (ADMETA<sup>Plus</sup> 2011) will be held September 12-15, 2011. 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, and application of Cu wiring has been broadened to the memory market and is widely used for Flash and DRAM. Securing good reliability for electromigration and low-k films in Low-k/Cu wiring schemes is still an important area of interest. There have been advancements in the introduction of metal deposition for front end processes such as for Silicide and Metal Gate, and submissions in this area are welcome. The progress of miniaturization technology for packaging is rapid, and concepts for integrated wiring technology between Si chips and mounting substrates are required. 3D wiring technology will be paid special attention as an important direction for the further device integration. Contributions of papers addressing these topics are being highly solicited as well as papers in related areas such as interconnect materials, interconnect design, reliability, process equipment, and cost reduction, etc. where there is no shortage of problems to be solved.

In addition to the main conference with its emphasis on the direction of conventional wiring scaling, a special **MtM (More than Moore)** session will be held to discuss post-scaling technology that is either in development or in concept stage.

This conference offers an excellent opportunity to learn about the most recent R&D activities in interconnect technology and related fields from researchers around the world. We look forward to having you join us.

ADMETA<sup>Plus</sup> 2011 General Chair: Kazuyoshi Ueno (Shibaura Institute of Technology)

ADMETA<sup>Plus</sup> 2011 Program Chair: Junichi Koike (Tohoku University)

## ★ Session Categories: Conference Topics of Interest

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

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

**Metallization:** PVD, CVD, ALD, Electroplating, 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 Technology, etc.

**Contact:** Silicide, Silicidation Process, Interface, Solid Phase Reaction, Shallow Junction, Crystal Properties, Electron Properties, Carrier Transport, Parasitic Resistance, etc.

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

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

**3D:** COW, WOW, Thinning, Bonding, TSV (Etching, CVD, PVD, Electroplating, CMP), TMV, Bump, Individuating, Redistribution Layer, Cooling, Reliability, etc.

**Emerging Technology for MtM:** Nano-carbon, Graphene, Back-end Device, Active Wiring, Memristor, Sensor, Electronic Luminescence, Silicon Photonics, Power Electronics, Flexible Electronics, Energy Harvesting, etc.

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1) Hiroshi Komiyama (Mitsubishi Research Institute)      2) Shuji Ikeda (tei Solutions)

1) Takeshi Nogami (IBM)      2) Takamasa Usui (Toshiba America)      3) Kristof Croes (IMEC)      4) Mansour Moinpour (Intel)  
5) Reinhold Dauskardt (Stanford Univ.)      6) Nancy Heylen (IMEC)      7) Ken Okutani (CASMAT)      8) John Forster (AMAT)

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1) Hiroyuki Wado (DENSO)                      2) TBD [MEMS/RF]                      3) Young-Chang Joo (Seoul National Univ.)  
4) Yi-Sha Ku (Institute of Photonics Technologies)                      5) Jong-Hoon Kim (Hynix)                      6) Mike Ma (SPIL)  
7) Kosuke Nagashio (The Univ. of Tokyo)                      8) Kazuyoshi Ono (NTT)                      9) Hiro Akinaga (AIST)

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1) Cu/Low-k Integration	Fuminori Ito (Renesas Electronics America)
2) Lithography	Masataka Endo (Osaka University)
3) Optical Interconnects/Si Photonics	Kazumi Wada (The Univ. of Tokyo)
4) Market Trend	Yosuke Mochizuki (Nikkei BP Cleantech Institute)
5) CVD Equipment	Hironori Yamada (Novellus Systems)
6) Metal	Kazuyoshi Maekawa (Renesas Electronics)
7) CMP/Cleaning	Hitoshi Morinaga (Fujimi Incorporated)
8) Failure Analysis	Kiyoshi Nikawa (Osaka University)

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★ Location: Shibaura Institute of Technology (Toyosu Campus)  
[http://www.shibaura-it.ac.jp/access/index\\_e.html](http://www.shibaura-it.ac.jp/access/index_e.html)

★ **Abstract Preparation and Submission:**  
Abstracts are Due: ~~May 31, 2011~~ >> **July 4, 2011**

Authors with papers presented at ADMETA<sup>Plus</sup> 2011 are encouraged to submit their original papers to a Special Issue of the Japanese Journal of Applied Physics (JJAP) dedicated to ADMETA<sup>Plus</sup> 2011. The JJAP Special Issue will be published in May 2012. Submission to the JJAP Special Issue will take place after the Advanced Metallization Conference, scheduled for October 4-6, 2011. Authors with papers accepted for both the US and Asian sessions should choose either the AMC proceedings or the 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 the JJAP Special Issue, please send your final paper to the ADMETA<sup>Plus</sup> 2011 Secretariat (Note: abstracts can be sent to both US and Asian sessions).

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**- Conference: October 4-6, 2011, Hyatt Regency Mission Bay, San Diego, CA**