



THE 18th INTERNATIONAL SYMPOSIUM ON SEMICONDUCTOR MANUFACTURING

October 18-20, 2010

Hyatt Regency Tokyo, Japan

*Innovative Manufacturing for
"More than Moore" and New Power Era*

ANNOUNCEMENT AND CALL FOR PAPERS

Hyatt Regency Tokyo, Japan

Monday, October 18 – Wednesday, October 20, 2010

EXTENDED ABSTRACT DEADLINE: Monday, June 14, 2010 (PDT)

Since its start in 1992 in Japan, ISSM has provided unique opportunities to share semiconductor manufacturing technology "best practices" for the benefit of professionals worldwide. At the symposium, semiconductor manufacturing professionals gather together to seriously discuss presented technologies developed because of the world wide need for semiconductor manufacturing technology advancement. The 18th annual ISSM will be held in Tokyo, Japan.

It is crucial to re-examine semiconductor manufacturing in terms of fundamental principles in order to continue scaling beyond the 32nm/22nm nodes. In addition, manufacturing technologies for preserving the earth's environment have become new challenges.

These manufacturing technology challenges show the need for drastic revolutionary thought and stronger collaborative efforts to find solutions to the pre-competitive challenges.

The ISSM 2010 will feature keynote speeches by world leading speakers, timely and highlighted topics in addition to the ISSM areas of interests, and networking sessions focusing on equipment/materials/software/services with suppliers' exhibits. ISSM contributes to the continued growth of the semiconductor industry through its infrastructure for networking, discussion, and information sharing among the world's professionals. We invite you to share your professional experiences at the Eighteenth International Symposium on Semiconductor Manufacturing.

Areas of Interest

Abstract will be accepted for each of following areas of interest. See reverse for further information.

Fab Management

- * Factory Design & Automated Material Handling(FD)
- * Manufacturing Strategy and Operation Management (MS)
- * Manufacturing Control and Execution (MC)
- * Environment, Safety and Health (ES)

Process Integration

- * Process and Material Optimization (PO)
- * Yield Enhancement Methodology (YE)
- * Contamination Control and Ultraclean Technology (UC)
- * Process Control and Monitoring (PC)
- * Process and Metrology Equipment(PE)
- * Design for Manufacturing (DM)

Final Manufacturing

- * Final Manufacturing (FM)

Recommendation for IEEE/TSM

Best papers for ISSM will have the chance to submit full papers for IEEE/TSM (Transactions on Semiconductor Manufacturing) which is published quarterly for worldwide distribution. About ten papers are annually selected and reported in ISSM/TSM special session for the next year.

Highlight Theme

Papers on the topics of special interests will be rearranged and will be programmed as a special session for highlight themes. Papers on the following topics are especially welcome. See reverse information.

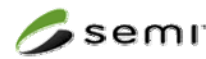
- * NGF: Next Generation Factory
- * Lean Manufacturing
- * Green Manufacturing
- * Advanced Lithography Challenge in Production
- * Ultra High Productivity
- * TSV:Through Silicon Via
- * Application Specific Semiconductor Manufacturing

Author Information

Prospective authors are requested to submit abstracts through web browser, consisting of exactly two pages - one page of text (approximately 3,000 characters) and a second page of supporting data, charts, photos and drawings. Only MS-WORD files using the provided template will be accepted. Abstract must be written in English.

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|---|-------------------------------|
| Abstract Submission Start | Monday, April 12, 2010 |
| Extended Abstract Submission Due | Monday, June 14, 2010 |

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Refer to Web Page: <http://www.semiconportal.com/issm/> for most current information.

Contact to issm 2008@semiconportal.com for further inquiries.

Additional details for the Areas of Interest and Highlight theme

Details for the Areas of Interest

Fab Management

FD: Factory Design & Automated Material Handling

This area focuses on fab design and its key enablers to meet the flexibility, extendibility, and scalability needs of a cost-effective leading-edge fab.

MS: Manufacturing Strategy and Operation Management

This area focuses on strategy and concepts for more functional fab, and its operation management to meet rapidly changing complex business requirements.

MC: Manufacturing Control and Execution

This area includes manufacturing execution and decision support systems, factory scheduling, control of equipment/materials handling systems and queue time management.

ES: Environment, Safety and Health

This area focuses on suppression of energy and materials consumption, recycling and reuse of materials from the standpoint of the environmental management in a semiconductor factory.

Process Integration

PO: Process and Material Optimization

This area focuses on process and material optimization from the standpoint of miniaturization, cost reduction and environment. The breakthrough technology to improve productivity is contained.

YE: Yield Enhancement Methodology

This area focuses on probe yield enhancement and its stabilization technology including inspection, analysis and reduction of defects and particles. Reports for the advanced 45nm process and 300mm wafer processes would be especially attractive.

UC: Contamination Control and Ultraclean Technology

This area focuses new technology on damage-less particle removal, contamination control of wafer backside and bevel, surface cleaning for new materials and fine structure. Energy saving cleaning and molecular level contamination control in advanced wafer fab will be included.

PC: Process Control and Monitoring

This area focuses on tighter process control for advanced production as well as mature fab, to achieve higher productivity, higher uptime, quality enhancement by advanced equipment control/advanced process control(AEC/APC), FDC, e-diagnostics and new sensors. This area also covers accuracy enhancement and smart process control using virtual metrology for 32 to 65nm nanoscale device manufacturing and excursion control for stable equipment operation.

PE: Process and Metrology Equipment

This area focuses on finer pattern delineation/control. The application of equipment engineering system will be highlighted.

DM: Design for Manufacturing

This area focuses in the collaboration between manufacturing and design including RET, OPC and systematic defects.

Final Manufacturing

FM: Final Manufacturing

This area focuses on "3D technology", "Flip chip & fine pitch bump", "Si interposer" and "Lead-free connection".

Details for the highlight theme

NGF: Next Generation Factory

Overall issue for design and manufacturing
ROI, 450mm wafer, Strategy for equipment and metrology
Control System, Single wafer transportation
Standardization and Scheduling

Lean Manufacturing

Kaizen/ Kaikaku
Cycle time Reduction
5S
Standardization
Cost Reduction
Productivity Improvement

Green Manufacturing

GHG Emission Reduction/Control
Waste Reduction
Material Conservation
Energy Conservation
3R (Reduce, Reuse, and Recycle)

Advanced Lithography Challenge in Production

ArF immersion lithography
DP (Double patterning technology), SA(Self Align) DPT
EUV(Extreme Ultraviolet) lithography, NIL(Nanoimprint
Lithography)
Optical Source/Mask Optimization
Advanced Reticles

Ultra High Productivity

Damage Free Process
Radical Reaction Base Manufacturing
Single Chamber Operation (Continuous Deposition and
Continuous Etching)
Gas Circulation and Recuperative System

TSV: Through Silicon Via

Process design for TSV
Via hole producing technology
Via hole filling technology
Applicable device and its thermal/electrical
characteristic evaluation

Application Specific Semiconductor Manufacturing

Mixed Signal / Radio Frequency / Power Device / Automotive
Device/MEMS/ Sensor/ Solar/ LED etc.

Sessions for highlight themes depends on the contents and numbers of accepted papers. Above mentioned are expected examples and themes are subject to change.