



Global Silicon Water Japan TC Chapter

Meeting Summary and Minutes

SEMICON Japan 2018
 December 13, 14:00 – 17:00
 Conference Tower, Tokyo Big Sight, Tokyo

TC Chapter Announcements

Next TC Chapter Meeting
 April 19, 2019, 14:30 – 17:30
 SEMI Japan Office, Ichigaya, Tokyo

Table 1 Meeting Attendees

Italics indicate virtual participants

Co-Chairs: Naoyuki Kawai (Meiji University), Tetsuya Nakai (SUMCO)

SEMI Staff: Junko Collins

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
Meiji University	Kawai	Naoyuki	SUMCO	Nakai	Tetsuya
Tokyo Electron	Mashiro	Supika	ShinEtsu Handotai	Toda	Naohisa
Global Wafers Japan	Takeda	Ryuji	Consultant	Kumai	Sadao
Hitachi High Technologies	Ikota	Masami	Siltronics	Riedel	Frank
Kobelco Research	Sumie	Shingo	Optima	Akiyama	Satoshi
Micro Sense	Perroots	Len	Wafer Information Service	Yoshise	Masanori

Table 2 Leadership Changes: none

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>

Table 3 Committee Structure Changes: None

<i>Previous WG/TF/SC Name</i>	<i>New WG/TF/SC Name or Status Change</i>



Table 4 Ballot Results: None

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>

#1 **Passed** ballots and line items will be submitted to the ISC Audit & Review Subcommittee for procedural review.

#2 **Failed** ballots and line items were returned to the originating task forces for re-work and re-balloting or abandoning.

Table 5 Activities Approved by the GCS between meetings of the TC Chapter: None

<i>#</i>	<i>Type</i>	<i>SC/TF/WG</i>	<i>Details</i>

Table 6 Authorized Activities: None

Listing of all revised or new SNARF(s) approved by the Originating TC Chapter.

<i>#</i>	<i>Type</i>	<i>SC/TF/WG</i>	<i>Details</i>
TBD	SNARF	IAASI TF	Line Item Revision of M58, Test Method for Evaluating DMA Based Particle Deposition Systems and Processes

#1 SNARFs and TFOFs are available for review on the SEMI Web site at:

<http://downloads.semi.org/web/wstdsbal.nsf/TFOFSNARF>

Table 7 Authorized Ballots: None

<i>#</i>	<i>When</i>	<i>TF</i>	<i>Details</i>

Table 8 SNARF(s) Granted a One-Year Extension: None

<i>#</i>	<i>TF</i>	<i>Title</i>	<i>Expiration Date</i>

Table 9 SNARF(s) Abolished: None

<i>#</i>	<i>TF</i>	<i>Title</i>

Table 9 SNARF(s) Abolished: None

#	TF	Title

Table 10 Standard(s) to receive Inactive Status: None

Standard Designation	Title

Table 11 New Action Items:

Item #	Assigned to	Details
SiW181213-01	M. Ikota	To inform to the IRDS of needs for a defect specification for new generation of future technology
SiW181213-02	M. Ikota	To share the task force decision on how to handle this issue with the SOI TF and the AWG TF

Table 12 Previous Meeting Action Items:

Item #	Assigned to	Details

1 Welcome, Reminders, and Introductions

Dr. Naoyuki Kawai called the meeting to order at 14:00. Attendees introduced themselves. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed.

Attachment: Required_Elements_Reg_20150327_E+J_2016NewStdTemplate,
Silicon Wafer Japan TC (2018.10.02) R0.1

2 Review of Previous Meeting Minutes

The TC Chapter reviewed the minutes of the previous meeting.

Motion: To approve the meeting minutes on October 2, 2018
By / 2nd: R. Takeda (GlobalWafers Japan) / T. Nakai (SUMCO)
Discussion:
Vote: 9/0 Motion passed

Action Item: None

Attachment: Silicon Wafer Japan TC (2018.10.02) R0.1

3 Liaison Reports

3.1 GCS

No topics to be reported.

3.2 Silicon Wafer North America TC Chapter

No report for this time since there was no TC Chapter Meeting since SEMICON West 2018 period.

Action Item: None,

Attachment: None,

3.3 Silicon Wafer Europe TC Chapter

See the attached report.

Dr. F. Riedel reported based on the meeting minutes.

Action Item: None,

Attachment: Europe Si Wafer Liaison Report Dec 2018 v1,

3.4 JSNM / MAS (Material Standards Study Group for Semiconductor Supply Chain) Report

The report was given by Mr. M. Yoshise. Of note, JSNM office moved to the new location

Action Item: None,

Attachment: None,

3.5 SEMI Staff Report

J. Collins (SEMI) gave the SEMI Staff Report. See the attachment for details.

Action Item: none,

Attachment: SEMI Staff Report 2018_1204,

4 Ballot Review: None

NOTE 1: TC Chapter adjudication on ballots reviewed is detailed in the Audits & Review (A&R) Subcommittee Forms for procedural review. The A&R forms are available as attachments to these minutes. The attachment number for each balloted document is provided under each ballot review section below.

No ballot review at this meeting.

Action Item:

Attachment:

5 Subcommittee and Task Force Reports

5.1 International 450mm Shipping Box Task Force / JA Shipping Box Task Force

No report was given at this meeting

Action Item: none,

Attachment: none,

5.2 International Advanced Wafer Geometry Task Force/Japan Advanced Wafer Geometry Task Force

The report was given by Mr. S. Akiyama and Mr. M. Yoshise. Of notes;

- The Following activities were approved at the meeting during SEMICON Europa 2018.
 - 6461: Reapproval of SEMI M73: Test Method for Extracting Relevant Characteristics from Measured Wafer Edge Profiles
 - ◇ PIP was already taken care by J. Amano
 - 6462: Line Item Revision to SEMI M1-0918, Specification for Polished Single Crystal Silicon Wafers, in which require the flatness/shape illustrations from current Appendix 1 to Related Information.
 - ◇ TF discussed briefly and continue to do at either IPW or AWG during SEMI NA Spring meeting.
- Some technical presentation were conducted at the task force meeting. See more details in the attached report.

Action Item: none,

Attachment: AWG TF Report 20181213,

5.3 International Polished Wafers Task Force

No special topic was reported at this meeting.

Action Item: none,

Attachment: none,

5.4 International Epitaxial Wafers Task Force

No special topic was reported at this meeting.

Action Item: none,

Attachment: none,

5.5 International Annealed Wafers Task Force

No special topic was reported at this meeting.

Action Item: None,

Attachment: None,

5.6 International SOI Wafers Task Force

No special topic was reported at this meeting.

Action Item: none,

Attachment: none,

5.7 International Terminology Task Force

No special topic was reported at this meeting.

Action Item: none,

Attachment: none,

5.8 International Test Methods Task Force / Japan Test Method Task Force

R. Takeda (Global Wafers Japan) reported. See attached report.

5.8.1 NEW STANDARD: Doc. 5981, TEST METHOD FOR RECOMBINATION LIFETIME OF THE EPILAYER OF THE SILICON EPITAXIAL WAFER (p/p+, n/n+) BY THE SHORT WAVELENGTH EXCITATION MICROWAVE PHOTOCONDUCTIVE DECAY METHOD

- This SNARF was approved at September 17, 2015 and should be approved to expand one more year of project period before April 20, 2019.
- Technical review among task force members was done. Task force works on more rule for documentation.

5.8.2 Major revision to M51 was discussed among the task force and the task force will propose SNARF for Revision to SEMI M51-1012: TEST METHOD FOR TIME ZERO DIELECTRIC BREAKDOWN CHARACTERISTICS OF AMORPHOUS SiO₂ FILMS FOR SILICON WAFER EVALUATION.

- 2-weeks review was done on September 18 and this was approved at the previous meeting and working on the documents.

5.8.3 New Standard Document: Test Method for Bulk Microdefect density and Denuded Zone Width in Annealed Silicon Wafers by Preferential Etching Technique

- The task force is working on it. SNARF will be submitted to the next Japan TC Chapter meeting.

5.8.4 New Standard Document: Guide for Measuring Bulk Micro Defect Density and Denuded Zone Width in Annealed Silicon Wafers by a Laser-Scatter Tomography Technique

- The task force is working on it.

See the attachment for more activities.

Action Item: None,

Attachment: Test Method TF Meeting Minutes_2018.12.11

5.9 International Advanced Automated Surface Inspection Task Force

M. Ikota reported. Of note;

- Discussion on M52, Guide for Specifying Scanning Surface Inspection Systems for Silicon Wafers for the 130 nm to 11 nm Technology Generations
 - Reference of archived ITRS is not appropriate since it is no longer valid. If some defect specifications for future technology generation is needed, the task force should inform the needs to IRDS Ms. M. Ikota takes this action item.
 - One of ideas is to delete reference to ITRS and to describe technology generation adding 7nm and 5nm. this was suggested by Mr. M. Yoshise.
 - SEMI M71, Specification for Silicon-on-Insulator (SOI) Wafers for CMOS LSI and SEMI M49, Guide for Specifying Geometry Measurement Systems for Silicon Wafers for the 130 nm to 16 nm Technology Generations refer to ITRS.
 - ◇ M71 refers to ITRS in revision record.
 - ◇ M49 refers to ITRS in purpose, recommended specification, tables and so on.
 - ◇ The IAASI TF will share their decision on how to handle this issue with the SOI TF and the AWG TF. Ms. M. Ikota takes this action item.

Action Item: Ms. M. Ikota, to inform to the IRDS of needs for a defect specification for new generation of future technology

Ms. M. Ikota, to share the task force decision on how to handle this issue with the SOI TF and the AWG TF.

Attachment: IAASI TF SemiconJapan2018 minutes_revised



SNARF_M58_5YrRev,

6 Old Business

6.1 *Previous Action Items*

All previous action items are closed.

Action Item: None,

Attachment: None,

6.2 3-year Project Period

As reported in the Staff Report, there is no SNARF to be considered.

6.3 Consideration of 5-year Review

none

7 New Business

7.1 No new business

Action Item: None

Attachment: None

8 Next Meeting and Adjournment

The next meeting is scheduled for April 19, 14:30 17:30 at SEMI Japan Office.

Adjournment: 17:00.

Respectfully submitted by:

Junko Collins

Standards & EHS

SEMI Japan

Phone: 81.3.3222.5819

Email: jcollins@semi.org

Minutes tentatively approved by:

Tetsuya Nakai (SUMCO), Co-chair	<Date approved>
Naoyuki Kawai (Meiji University), Co-chair	<Date approved>

Table 13 Index of Available Attachments^{#1}

<i>Title</i>	<i>Title</i>
Required_Elements_Reg_20150327_E+J_2016NewStdTemplate	AWG TF Report 20181213



Table 13 Index of Available Attachments#1

Europe Si Wafer Liaison Report Dec 2018 v1	IAASI TF SemiconJapan2018 minutes_revised
SEMI Staff Report 2018_1204	SiW_Agenda_181213_R0.1
SNARF_M58_5YrRev	Test Method TF Meeting Minutes_2018.12.11

#1 Due to file size and delivery issues, attachments must be downloaded separately. A .zip file containing all attachments for these minutes is available at www.semi.org. For additional information or to obtain individual attachments, please contact [SEMI Staff Name] at the contact information above.