



Global Silicon Wafer Japan TC Chapter

Meeting Summary and Minutes

Japan Standards Winter Meetings 2023

Thursday, December 14, 2023, 10:00 –12:00[JST]

Tokyo Big Sight, Tokyo /Official Virtual TC Chapter Meeting (Hybrid)

TC Chapter Announcements

Next TC Chapter Meeting

Friday, April 26, 2024, 10:00-12:00 [JST]

Official Virtual TC Chapter Meeting

Table 1 Meeting Attendees

Italics indicate virtual participants

Co-Chairs: Name (Company) Tetsuya Nakai (SUMCO), Ryuji Takeda (Global Wafers Japan)

SEMI Staff: Mami Nakajo

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
SELF	Kawai	Naoyuki	SUMCO	Nakai	Tetsuya
SELF	Yoshise	Masanori	Shin-Etsu Handotai Co., Ltd.	Tsunoda	Hitoshi
AST	Hao	Hu	Optima Inc.	Akiyama	Satoshi
Global Wafers Japan	Takeda	Ryuji	SUMIKA CHEMICAL ANALYSIS SERVICE,LTD.	Omata	Mikako
Shin-Etsu Handotai Co., Ltd.	Otsuki	Tsuyoshi	SEMI Japan	Nakajo	Mami
Meiji University	Ogura	Atsushi	SEMI Japan	Osawa	Naoko

Table 2 Leadership Changes

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>
International Test Method TF		Mikako Omata (SCAS)
International Polished Wafers TF under Europe Silicon Wafer TC Chapter	Frank Riedel (Siltronic)	Christina Sanna (GlobalWafers)
International Advanced Surface Inspection TF under Europe Silicon Wafer TC Chapter	Frank Riedel (Siltronic)	Judith Wittmann (Siltronic)

Table 3 Committee Structure Changes

<i>Previous WG/TF/SC Name</i>	<i>New WG/TF/SC Name or Status Change</i>
None	

Table 4 Ballot Results

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>
None		



#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 Ratification Ballot Results

<i>Document #</i>	<i>Document Title</i>	<i>ISC A&R Action</i>	<i>A&R Forms</i>
None			

Note 1: **Passed** Ratification ballots will be submitted to SEMI publication for final processing.

Note 2: **Failed** Ratification ballots were returned to the originating task forces for re-work and re-balloting or abandoning.

Table 6 Activities Approved by the GCS between meetings of the TC Chapter

<i>#</i>	<i>Type</i>	<i>SC/TF/WG</i>	<i>Details</i>
None			

No activity requested by the Japan TC Chapter between meetings.

Table 7 Authorized Activities

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>
None			

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

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

Table 8 Authorized Ballots

<i>#</i>	<i>When</i>	<i>TF</i>	<i>Details</i>
None			

Table 9 SNARF(s) Granted a One-Year Extension

<i>#</i>	<i>TF</i>	<i>Title</i>	<i>Expiration Date</i>
6570	International Test Methods Task Force	SNARF for: New Standard: Guide for Measuring Bulk Micro Defect Density and Denuded Zone Width in Annealed Silicon Wafers by a Laser-Scattering Tomography Technique	
6702	Japan Test Method Task Force	SNARF for: Revision of M60: TEST METHOD FOR TIME DEPENDENT DIELECTRIC BREAKDOWN CHARACTERISTICS OF Amorphous SiO2 FILMS FOR Silicon WAFER EVALUATION	

Table 10 SNARF(s) Abolished

<i>#</i>	<i>TF</i>	<i>Title</i>
None		

Table 11 Standard(s) to receive Inactive Status

<i>Standard Designation</i>	<i>Title</i>
None	

Table 12 New Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
20231214-01	Test Method TF	to review the contents of SMI M88 to decide whether it is reapproval ballot by next TC Chapter meeting.
20231214-02	Tetsuya Nakai (SUMCO)	to inform the proposal and ask each TF leaders regarding M 52 and M73 to proceed the action.

Table 13 Previous Meeting Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
20230413-01	SEMI Staff	To confirm details with SEMI NA Staff regarding the reapproval documents that the NA co-chair has requested to be transferred to Japan for authorization.> Done

1 Welcome, Reminders, and Introductions

Tetsuya Nakai (SUMCO), called the meeting to order at 10:00. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

Attachment: 1.2_Required Element Nov 2022_E+J (new template)

2 Review of Previous Meeting Minutes

The TC Chapter reviewed the minutes of the previous meeting.

Motion:	Approve the minutes as written
By / 2nd:	Ryuji Takeda (Global Wafers Japan) / Naoyuki Kawai (Self)
Discussion:	None
Vote:	8 in favor and 0 opposed. Motion Passed.

Attachment: 2_20230825_Global Silicon Wafer Japan TC Chapter Meeting Minutes_draft

3 Ballot Review

None

4 Subcommittee and Task Force Reports

4.1 International Advanced Wafer Geometry Task Force

Satoshi Akiyama (Optima Inc.) reported for the International Advanced Wafer Geometry Task Force as attached.

Attachment: 4.1_AWG TF Japan Report_20231213_r1

4.2 International/Japan Test Method Task Force

Ryuji Takeda (Global Wafers Japan) reported for the Japan Test Method Task Force as attached.

Also Ryuji Takeda (Global Wafers Japan) suggested to motion to add Omata Mikako (SUMIKA CHEMICAL ANALYSIS SERVICE,LTD.) as International Test Method TF Co-leader.

Motion:	Approve Omata Mikako (SUMIKA CHEMICAL ANALYSIS SERVICE,LTD.) as International Test Method Co-leader
By / 2nd:	Ryuji Takeda (Global Wafers Japan) / Naoyuki Kawai (Self)

Discussion:	None
Vote:	8 in favor and 0 opposed. Motion Passed.

Attachment: 4.2_Japan Test Method TF meeting Dec 13 2023_R2

4.3 International Advanced Automated Surface Inspection Task Force

No special topic was reported at this meeting.

4.4 International Polished Wafers Task Force

Tetsuya Nakai (SUMCO) reported for the TF.

M1 will be planned for revision due to deletion of 450mm notation. SNARF will be issued.

4.5 International Epitaxial Wafers Task Force

Tsunoda Hitoshi (Shin-Etsu Handotai) reported that there is no update in the task force.

4.6 International Annealed Wafers Task Force

No special topic was reported at this meeting.

4.7 International SOI Wafers Task Force

Tetsuya Nakai (SUMCO) reported for the SOI Wafers Task Force.

The TF is working on “ Specification of 200 mm and 300 mm SOI Wafer for RF Devices” and has started to discuss from NA Spring Meeting..

4.8 International Terminology Task Force

Tetsuya Nakai (SUMCO) reported that there is no update in the task force.

5 Liaison Reports

5.1 Silicon Wafer Europe TC Chapter

Tetsuya Nakai (SUMCO) reported that there is no update on the Silicon Wafer Europe TC Chapter.

Masanori Yoshise (Self) said he couldn't see the NA, EU page of CER and will contact SEMI Staff at the next time to confirm the details.

Attachment: 5.1_EU Si Wafer TC Chapter Liaison Report Dec 2023 v1

5.2 Silicon Wafer North America TC Chapter

Tetsuya Nakai (SUMCO) reported for the Silicon North America TC Chapter as attached.

Attachment: 5.2_NA Si Wafer TC Chapter Liaison Report July2023

5.3 GCS

No special topic was reported at this meeting.

6 SEMI Staff Report

Mami Nakajo (SEMI) gave the SEMI Staff Report.

Attachment: 6_Staff Report Dec 2023 HK_N_AY

7 Old Business

7.1 Project Period Review

7.1.1 6570, SNARF for: New Standard: Guide for Measuring Bulk Micro Defect Density and Denuded Zone Width in Annealed Silicon Wafers by a Laser-Scattering Tomography Technique

Motion:	Approve a 1 year extension of the project period for the SNARF 6570
By / 2nd:	Ryuji Takeda (Global Wafers Japan) / Naoyuki Kawai (Self)
Discussion:	None
Vote:	8 in favor and 0 opposed. Motion Passed.

7.1.2 6702, SNARF for: Revision of M60: TEST METHOD FOR TIME DEPENDENT DIELECTRIC BREAKDOWN CHARACTERISTICS OF Amorphous SiO₂ FILMS FOR Silicon WAFER EVALUATION

Motion:	Approve a 1 year extension for SNARF for: Revision of M60:
By / 2nd:	Ryuji Takeda (Global Wafers Japan) / Naoyuki Kawai (Self)
Discussion:	None
Vote:	8 in favor and 0 opposed. Motion Passed.

7.2 5 Year Review Check

7.2.1 SEMI M51-1012: Test Method for Characterizing Silicon Wafer by Gate Oxide Integrity

7.2.2 SEMI M60-1014: Test Method for Time Dependent Dielectric Breakdown Characteristics of SiO₂ Films for Si Wafer Evaluation

Both documents are on going by Test Method TF

7.2.3 SEMI M88-0119: Practice for Sample Preparation Methods for Measuring Minority Carrier Diffusion Length in Silicon Wafers by Surface Photovoltage Methods

Action Item: 20231214-01(Test Method TF) to review the contents of SMI M88 to decide whether it is reapproval ballot by next TC Chapter meeting.

8 New Business

8.1 Proposal of New Activity

None

9 New Business

9.1 Proposal of New Activity

9.1.1 Proposal of the following TF Leadership changes



- International Polished Wafers TF under Silicon Wafer Europe Technical Committee
 - International Advanced Surface Inspection TF under Silicon Wafer Europe Technical Committee
- NEW European chair of IPW TF: Christina Sanna (GlobalWafers) – succeeding Frank Riedel
 NEW European chair of IAASI TF: Judith Wittmann (Siltronic) – succeeding Frank Riedel

Motion:	Approve the EU IPW TF leader change
By / 2nd:	Ryuji Takeda (Global Wafers Japan) / Naoyuki Kawai (Self)
Discussion:	None
Vote:	8 in favor and 0 opposed. Motion Passed.
Motion:	Approve the EU IAASI TF leader change
By / 2nd:	Ryuji Takeda (Global Wafers Japan) / Naoyuki Kawai (Self)
Discussion:	None
Vote:	8 in favor and 0 opposed. Motion Passed.

9.1.2 Regarding deletion of 450mm description from SEMI M1 and 450mm related standards

A proposal was made by Tetsuya Nakai (SUMCO) to remove the reference to 450mm from SEMI M1 and other 450mm related Standards documents.

Please refer the attach and the procedure is follows.

- Tetsuya Nakai (SUMCO) ask the following TF leaders to prepare each SNARF and Ballot Draft which 450mm descriptions are removed from as Line Item Revisions.
 - M1; : Hirofumi Okano (GlobalWafers) and EU TF leaders.
 - M49; Masanori Yoshise (Self)
 - M52; Nakai will ask Int'l AASI TF leaders.
 - M62; Tsunoda Hitoshi (Shin-Etsu Handotai) (supported by Tetsuya Nakai (SUMCO))
 - M73; Nakai will ask Frank Riedel (Siltronic).

Action Item: 20231214-02(Tetsuya Nakai (SUMCO) to inform the proposal and ask each TF leaders regarding M 52 and M73 to proceed the action.

Attachment: 9.2_450mm related standards

10 Action Item Review

10.1 Open Action Item

None

10.2 New Action Item

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
20231214-01	Test Method TF	to review the contents of SMI M88 to decide whether it is reapproval ballot by next TC Chapter meeting.
20231214-02	Tetsuya Nakai (SUMCO)	to inform the proposal and ask each TF leaders regarding M 52 and M73 to proceed the action by the end of 2023



11 Next Meeting and Adjournment

The next meeting is scheduled for as follows.

Friday, April 26, 10:00am-12:00[JST] (via OVTCCM)

Please check www.semi.org/standards for updates.

See <http://www.semi.org/standards-events> for the current list of events.

Adjournment: [1130]>.

Respectfully submitted by:

Mami Nakajo

Coordinator

SEMI Japan

Phone: +81.3.3222.5757

Email: mnakajo@semi.org

Minutes tentatively approved by:

Tetsuya Nakai (SUMCO), Co-chair	January 16, 2024
Ryuji Takeda (Global Wafers Japan), Co-chair	January 16, 2024

Table 14 Index of Available Attachments#1

<i>Title</i>	<i>Title</i>
1.2_Required Element Nov 2022_E+J (new template)	5.1_EU Si Wafer TC Chapter Liaison Report Dec 2023 v1
2_20230825_Global Silicon Wafer Japan TC Chapter Meeting Minutes_draft	5.2_NA Si Wafer TC Chapter Liaison Report July2023
4.1_AWG TF Japan Report_20231213_r1	6_Staff Report Dec 2023 HK_N_AY
4.2_Japan Test Method TF meeting Dec 13 2023_R2	9.2_450mm related standards

#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 Mami Nakajo at the contact information above.