



Global Silicon Wafer Japan TC Chapter

Meeting Summary and Minutes

Japan Standards-Winter 2022 Meetings

Wednesday, December 14, 2022, 13:00 –17:00[JST]

Official Virtual TC Chapter Meeting

TC Chapter Announcements

Next TC Chapter Meeting

Thursday, April 25, 2023, 13:00-15:00 [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	<i>SUMCO</i>	<i>Nakai</i>	<i>Tetsuya</i>
Wafer Information Service	Yoshise	Masanori	<i>Shin-Etsu Handotai Co., Ltd.</i>	Tsunoda	Hitoshi
Kobelco Research Institute, Inc.	Kannaka	Masato	<i>Soitec</i>	<i>Pfeiffer</i>	<i>Gerd</i>
Miraial Co., Ltd.	Nagashima	Tsuyoshi	Office SHIRAMIZU	Shiramizu	Yoshimi
Global Wafers Japan	Takeda	Ryuji	SUMIKA CHEMICAL ANALYSIS SERVICE, LTD.	Omata	Mikako
			<i>SEMI Japan</i>	<i>Nakajo</i>	<i>Mami</i>

Table 2 Leadership Changes

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>
None		

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>
6860	Revision of SEMI M41- 0615, Specification of Silicon-on-Insulator (SOI) for Power Device/ICs	Passed with editorial change
6570A	New Standard: Guide for Measuring Bulk Micro Defect Density and Denuded Zone Width in Annealed Silicon Wafers by a Laser-Scattering Tomography Technique	Failed and returned to TF for rework

#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

#	Type	SC/TF/WG	Details
None			

No activity requested by the Japan TC Chapter between meetings.

Table 6 Authorized Activities

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

#	Type	SC/TF/WG	Details
None			

#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

#	When	TF	Details
None			

Table 8 SNARF(s) Granted a One-Year Extension

#	TF	Title	Expiration Date
6570	International Test Methods Task Force	New Standard: Guide for Measuring Bulk Micro Defect Density and Denuded Zone Width in Annealed Silicon Wafers by a Laser-Scattering Tomography Technique	2024/04/19

Table 9 SNARF(s) Abolished

#	TF	Title
None		

Table 10 Standard(s) to receive Inactive Status

Standard Designation	Title
None	

Table 11 New Action Items

Item #	Assigned to	Details
20221214-01	JA Shipping Box TF	To review SEMI M31-0718, Specification for Mechanical Features of Front-Opening Shipping Box Used to Transport and Ship 300 mm Wafers to confirm whether to Reapproval by the next TC chapter meeting.

Table 12 Previous Meeting Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
20220825-01	International Test Methods Task Force	To prepare for the ballot submission of Document#6570: New Standard: Guide for Measuring Bulk Micro Defect Density and Denuded Zone Width in Annealed Silicon Wafers by a Laser-Scattering Tomography Technique into Cycle 7-2022>Done

1 Welcome, Reminders, and Introductions

Ryuji Takeda (Global Wafers Japan), called the meeting to order at 13:00. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

Attachment: 01-02_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 previous meeting minutes of the Silicon Wafer Japan TC Chapter on August 25, 2022 as written
By / 2nd:	Naoyuki Kawai (Self) / Tetsuya Nakai (SUMCO)
Discussion:	None
Vote:	6 in favor and 0 opposed. Motion Passed.

Attachment: 02-01_20220825_Global Silicon Wafer Japan TC Chapter Meeting Minutes_approved_r1

3 Ballot Review

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.

3.1 Cycle 7-2022 submitted by the North America TC Chapter

3.1.1 Doc. 6860 - Revision of SEMI M41- 0615, Specification of Silicon-on-Insulator (SOI) for Power Device/ICs

Motion:	This is not a Safety Document, when all safety-related information is removed, the Document is still technically sound and complete. (Regulations ¶ 8.7.1)
By / 2nd:	Gerd Pfeiffer (Soitec) / Masanori Yoshise (Self)
Discussion:	None
Vote:	8 in favor and 0 opposed. Motion Passed.

Motion:	This Document passed TC Chapter review with editorial changes and will be forwarded to the ISC A&R SC for procedural review.
By / 2nd:	Gerd Pfeiffer (Soitec) / Masanori Yoshise (Self)
Discussion:	None
Vote:	9 in favor and 0 opposed. Motion Passed.

Attachment: 6860 A&R final]

3.2 Cycle 7-2022 submitted by the Japan TC Chapter

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



Motion:	This Document failed TC Chapter review and will be returned to the TF for rework.
By / 2nd:	Omata Mikako (SUMIKA CHEMICAL ANALYSIS SERVICE,LTD.) / Naoyuki Kawai (Self)
Discussion:	None
Vote:	7 in favor and 0 opposed. Motion Passed.

Attachment: 6570A A&R final

4 Subcommittee and Task Force Reports

4.1 International Advanced Wafer Geometry Task Force

Masanori Yoshise (Wafer Information Service) reported for the International Advanced Wafer Geometry Task Force as attached.

Attachment: 04-01_20221214 AWG.Minutes

4.2 International/Japan Test Method Task Force

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

Attachment: 04-02_International_Japan Test Method TF meeting Dec 14 2022

The following documents are still on the "5-year Review Check" list and Ryuji Takeda (Global Wafers Japan) reported the status in the Task Force report.

- M51-1012: Test Method for Characterizing Silicon Wafer by Gate Oxide Integrity
- M60-1014: Test Method for Time Dependent Dielectric Breakdown Characteristics of SiO₂ Films for Si Wafer Evaluation

4.3 International Advanced Automated Surface Inspection Task Force

No special topic was reported at this meeting.

4.4 International Polished Wafers Task Force

No special topic was reported at this meeting.

4.5 International Epitaxial Wafers Task Force

No special topic was reported at this meeting.

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 International SOI Wafers Task Force.

An adjudication of ballot Doc. 6860 - Revision of SEMI M41- 0615, Specification of Silicon-on-Insulator (SOI) for Power Device/IC, was held within this meeting. Please see section 3.1

4.8 International Terminology Task Force

No special topic was reported at this meeting.

4.9 JA Shipping Box TF

No special topic was reported at this meeting.

5 Liaison Reports

5.1 Silicon Wafer Europe TC Chapter

Paul Trio (SEMI) gave the Silicon Wafer Europe TC Chapter as attached..

Attachment: 05-01_EU Si Wafer TC Chapter Liaison Report Dec 2022 v1

5.2 Silicon Wafer North America TC Chapter

Paul Trio (SEMI) reported for the Silicon North America TC Chapter as attached.

Attachment: 05-02_NA Si Wafer TC Chapter Liaison Report August 2022

5.3 GCS

Tetsuya Nakai (SUMCO) reported for the GCS that there has been no special topic in the last GCS meeting.

6 SEMI Staff Report

Mami Nakajo (SEMI) gave the SEMI Staff Report.

Attachment: 06-01_Staff Report 2022Dec + Awardsr1

7 Old Business

7.1 Project Period Review

Naoyuki Kawai (Self) requested to extend one year of the project period for the SNARF #6570.

Motion:	To approve a 1 year extension of the project period for the SNARF 6570 to 2024/4/19
By / 2nd:	Naoyuki Kawai (Self) / Masanori Yoshise (Self)
Discussion:	None
Vote:	5 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

These documents are still on the "5-year Review Check" list and Japan Test Method TF are still working under the following SNARF.

#6687 SNARF for: Revision of M51: Test Method for Characterizing Silicon Wafer by Gate Oxide Integrity

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

Ryuji Takeda (Global Wafers Japan) reported them in the Japan Test Method Task Force report. (See 4.2)

7.2.3 SEMI M31-0718: Specification for Mechanical Features of Front-Opening Shipping Box Used to Transport and Ship 300 mm Wafers

Action Item:20221214-01(JA Shipping Box TF) to review SEMI M31-0718, Specification for Mechanical Features of Front-Opening Shipping Box Used to Transport and Ship 300 mm Wafers to confirm whether to Reapproval by the next TC chapter meeting.

8 New Business

8.1 Discussion on Legacy Standards

Tetsuya Nakai (SUMCO) suggested that regarding 5 years review, if there is almost no change, why don't we set them to Inactive rather than Reapproval after each TF confirms the contents of documents.

We'll continue to discuss at NA Spring Silicon TC meeting.

After set to Inactive, can we change Current Status? ➡Yes.

9 Action Item Review

9.1 Open Action Item

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
20220825-01	International Test Methods Task Force	To prepare for the ballot submission of Document#6570A: New Standard: Guide for Measuring Bulk Micro Defect Density and Denuded Zone Width in Annealed Silicon Wafers by a Laser-Scattering Tomography Technique in Cycle7-2022>Done

9.2 New Action Item

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
20221214-01	JA Shipping Box TF	To review SEMI M31-0718, Specification for Mechanical Features of Front-Opening Shipping Box Used to Transport and Ship 300 mm Wafers to confirm whether to Reapproval by the next TC chapter meeting.

10 Next Meeting and Adjournment

The next meeting is scheduled for as follows.

Thursday, April 13th,2023, 10:00am-noon(Hybrid)

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

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

Adjournment: [16:00]>.

Respectfully submitted by:

Mami Nakajo

Coordinator

SEMI Japan

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Minutes tentatively approved by:

Tetsuya Nakai (SUMCO), Co-chair	January 10, 2023
Ryuji Takeda (Global Wafers Japan), Co-chair	January 10, 2023

Table 13 Index of Available Attachments#1

<i>Title</i>	<i>Title</i>
01-02_Required Element Nov 2022_E+J (new template)	05-02_NA Si Wafer TC Chapter Liaison Report August 2022
02-01_20220825_Global Silicon Wafer Japan TC Chapter Meeting Minutes_approved_r1	06-01_Staff Report 2022Dec + Awardsr1
04-01_20221214 AWG.Minutes	6860 A&R final
04-02_International_Japan Test Method TF meeting Dec 14 2022	6570A A&R final
05-01_EU Si Wafer TC Chapter Liaison Report Dec 2022 v1	

#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.