

Silicon Wafer Europe TC Chapter

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Meeting Information

- **Last meeting in Europe**
 - Oct 7, 2015
 - SEMICON Europa
 - Dresden, Germany
- **Next meeting**
 - Oct 2016
 - SEMICON Europa
 - Grenoble, France
 - Check www.semi.org/standards for latest update

Task Forces with European Participation

- **Int'l Advanced Wafer Geometry (AWG) TF**
 - Leaders: N. Poduje, SMS, J. Sinha, S. Akiyama, Raytex, F. Passek, Siltronic AG/F. Riedel, Siltronic AG
- **Int'l Advanced Surface Inspection (ASI) TF**
 - Leaders: K. Haller, KLA-Tencor, Y. Tamaki, F. Riedel, Siltronic AG
- **Int'l Terminology TF**
 - Leaders: M. Bullis, Materials & Metrology, T. Nakai, Sumco, P. Wagner
- **Int'l Test Methods TF**
 - Leaders: D. Gupta, STA, R. Takeda, P. Wagner

Int'l Polished Wafer TF

- Leaders: Mike Goldstein, John Valley - Sun Edison, T. Takenaka, Consultant, K. Matsukawa, Renesas, K. Izunome, GlobalWafers F. Riedel, Siltronic AG

Leadership Changes

- **None.**

Ballot results

- 5737 - Revision of SEMI MF1391-1107 (Reapproved 0912), Test Method for Substitutional Atomic Carbon Content of Silicon by Infrared Absorption: **Failed**
- 5804 - Revision of SEMI M53-0310, Practice for Calibrating Scanning Surface Inspection Systems Using Certified Depositions of Monodisperse Reference Spheres on Unpatterned Semiconductor Wafer Surfaces: **Passed**
- 5859 - Line Item Revision of SEMI MF1811-0310, Guide for Estimating the Power Spectral Density Function and Related Finish Parameters from Surface Profile Data
 - LI 1 Changed “a-priori” to “a priori” in ¶¶ 2.8, 4.2.16.1, and 4.2.28.1: **Passed**
 - LI 2 In ¶ 4.2.29.2.1, eliminated the line break in the inline equation: **Passed**
 - LI 3 In ¶ 5.3.1, added missing square bracket to Eq 29: **Passed**
 - LI 4 In ¶ 5.4.2, spelt bookkeeping without a hyphen: **Passed**

Ballots to be reviewed at next mtg

- tbd

Int'l Advanced Wafer Geometry TF

- **Leaders: N. Poduje, SMS, J. Sinha, S. Akiyama, Raytex, F. Passek, Siltronic AG/F. Riedel, Siltronic AG**
- **Meeting at SEMICON Europa 2015**
 - Doc 5744A: Line Item Revision to SEMI M49, Guide for Specifying Geometry Measurement Systems for Silicon Wafers for the 130 nm to 16 nm Technology Generations
 - Initial ballot failed at SEMICON West. A revised SNARF (not yet approved) proposes changes in both M49 and M59 (Terminology for Silicon Wafers), but the TF recommended to NOT combine changes in both documents but to pursue changes related to SEMI M49 first
 - Once revision of M49 is approved, related changes in SEMI M59 will require a separate SNARF
 - Revision to M78: Guide for determining Nanotopography to add adjusting filter size and analysis area
 - Status unclear: Gerd Pfeiffer has recently moved from IBM to GlobalFoundries

Int'l Advanced Surface Inspection TF

- **Leaders: K. Haller, KLA-Tencor, Y. Tamaki, F. Riedel, Siltronic AG**
- **Meeting at SEMICON Europa 2015**
 - Ballot 5804, Revision to Practice for Calibrating Scanning Surface Inspection Systems Using Certified Depositions of Monodisperse Reference Spheres on Unpatterned Semiconductor Wafer Surfaces
 - No rejects or comments, later approved at the TC Chapter mtg
 - Ballot 5859 - Line Item Revision of SEMI MF1811-0310, Guide for Estimating the Power Spectral Density Function and Related Finish Parameters from Surface Profile Data
 - All four Line Items were approved by the TC Chapter. Following publication, a new SNARF will be submitted for approval to clean up language ("must", "should") issues

Int'l Terminology TF

Leaders: M. Bullis, Materials & Metrology, T. Nakai, Sumco,
P. Wagner

- No meeting in Europe for a while

Int'l Test Methods TF

- D. Gupta, STA, R. Takeda, **P. Wagner**
- Meeting at SEMICON Europa 2015
 - Ballot 5737: Revision of SEMI MF1391-1107 (Reapproved 0912), Test Method for Substitutional Atomic Carbon Content of Silicon by Infrared Absorption was failed by the TC Chapter
 - The ballot will NOT be issued in Cycle 8 as there was not adequate time for members to review the proposed changes
 - Ballot 5703 - New Standard: Guide for Carrier Recombination Lifetime Measurements in Electronic Grade Silicon
 - This document was not discussed due to time constraints.
- New activity in Japan Society for New Materials (JSNM) regarding a Test Method for measuring low carbon content in Si. JSNM intends to develop this test method and then transfer it to SEMI. Staff and members will contact JSNM and encourage them to develop the document within SEMI.

Int'l Polished Wafer TF

- **Leaders: Mike Goldstein, John Valley-Sun Edison, T. Takenaka, Consultant, K. Matsukawa, Renesas, K. Izunome, GlobalWafers F. Riedel, Siltronic AG**
- **Meeting at SEMICON Europa 2015**
 - Revised SNARF for ballot 5893, Revision of SEMI M1-0915 Specifications for Polished Single Crystal Silicon Wafers approved at TC Chapter meeting
 - Among other changes, references to MF534 and MF657 will be removed
 - Ballot to be issued in Cycle 8

Revised Committee Charter

- **To develop international technical Standards applicable to silicon wafers used in electronic device manufacturing.**
- **These Standards include:**
 - Specifications and guides for silicon wafers (bare and processed).
 - Test methods and practices for wafer properties and quality.
 - Specifications and guides for silicon wafer metrology.
 - Specifications for wafer shipping boxes.
- **The International Silicon Wafer Technical Committee will also work to promote technical communication and understanding between and among silicon suppliers, equipment suppliers and users, within the framework of SEMI Standards regulations, and to maintain active liaison with other Technical Committees, e.g., Traceability regarding wafer ID.**
- **Approved by EU TC Chapter and ERSC on Oct. 7, 2015**

Questions?

- **Contact**
 - Kevin Nguyen (knguyen@semi.org)