Compound Semiconductor Materials Europe TC Chapter

Meeting Summary and Minutes
Technical Committee Meeting (teleconference)
April 18, 2018, 13:00-14:30 CEST
Nurnberg, Germany

Next Committee Meeting
Tentatively in Fall 2018, Munich, Germany

Committee Announcements

Table 1 Meeting Attendees

<table>
<thead>
<tr>
<th>Company</th>
<th>Last</th>
<th>First</th>
<th>Company</th>
<th>Last</th>
<th>First</th>
</tr>
</thead>
<tbody>
<tr>
<td>SiCrystal</td>
<td>Weber</td>
<td>Arnd</td>
<td>Freiberger Compound Materials</td>
<td>Kretzer</td>
<td>Ulrich</td>
</tr>
<tr>
<td>Munich University</td>
<td>Alt</td>
<td>Hans-Christian</td>
<td>Norstel</td>
<td>Magnusson</td>
<td>B.</td>
</tr>
<tr>
<td>SemiMap</td>
<td>Jantz</td>
<td>Wolfgang</td>
<td>Infineon</td>
<td>Buchweitz</td>
<td>Moencke</td>
</tr>
<tr>
<td>NGC</td>
<td>Oliver</td>
<td>James</td>
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</tr>
</tbody>
</table>

Table 2 Leadership Changes
None

Table 3 Ballot Results (or move to Section 4, Ballot Review)
Passed ballots and line items will be submitted to the ISC Audit & Review Subcommittee for procedural review.
Failed ballots and line items were returned to the originating task forces for re-work and re-balloting.

<table>
<thead>
<tr>
<th>Document #</th>
<th>Document Title</th>
<th>Committee Action</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

Table 4 Authorized Ballots (or move to Section 7, New Business)

<table>
<thead>
<tr>
<th>#</th>
<th>When</th>
<th>SC/TF/WG</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

Table 5 Authorized Activities (or move to Section 7, New Business)

<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>SC/TF/WG</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>SNARF</td>
<td>M54</td>
<td>5-year-Review of M54 “Guide for semi-insulating GaAs parameters”</td>
</tr>
</tbody>
</table>

Note: SNARFs and TFOFs are available for review on the SEMI Web site at:
http://downloads.semi.org/web/wstdsbal.nsf/TFOFSNARF

Table 6 – Previous Meeting Actions Items

<table>
<thead>
<tr>
<th>Item #</th>
<th>Assigned to</th>
<th>Details</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
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</tr>
</tbody>
</table>
### Table 6 New Action Items (or move to Section 8, Action Item Review)

<table>
<thead>
<tr>
<th>Item #</th>
<th>Assigned to</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
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</tbody>
</table>

### 1 Welcome, Reminders, and Introductions
Arnd Weber called the meeting to order at 1:00pm. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed and there were no questions. Attendees introduced themselves.

### 2 Review of Previous Meeting Minutes
None

### 3 Task Force Reports

#### 3.1 M54 Revision TF
5y review M54: was approved for ballot in Nov Meeting at SEMICON Europa but missed to send to ballot. The ballot will be sent to SEMI by U. Kretzer in the next days.
- Target: review in next ECs meeting

#### 3.2 SiC TF
Arnd Weber reported for the SiC Task Force.
- M55-0817 Specification for Polished Monocrystalline Silicon Carbide Wafers is published.
- M81-0418 Guide to Defects Found in Monocrystalline Silicon Carbide Substrates is also published.
- Evaluating, if epi-defect definition standard could find export support for a standardization process. Situation to start a 200mm wafer standard are under observation – currently not feasible.

#### 3.3 Resistivity Round Robin TF
Wolfgang Jantz reported on the status:
- The contactless resistivity standard is published as M87-0116
- There is an effort to get more participants for round-robin, no technical progress to report

### 4 Ballot Review
There was no ballot review scheduled in this meeting.

### 5 5-year-Reviews
Both M82 and M83 are due for 5 year review.
- SEMI M82-0813 Test Method for the Carbon Acceptor Concentration in Semi-Insulating Gallium Arsenide Single Crystals by Infrared Absorption Spectroscopy
- SEMI M83-0913 Test Method for Determination of Dislocation Etch Pit Density in Monocrystals of III-V Compound Semiconductors

General strategy:
- Identify technical experts and prepare a technical draft before autumn Meeting (if possible)
- At autumn meeting approve new TFs and any available drafts in one meeting.
- If virtual meetings with voting are available (released by SEMI) perform an approval meeting to establish TF / update TF mission ion request before autumn meeting.

- U. Kretzer will address M83 (same experts as M54 review)
- H.C Alt will initially check M82 for any necessary editorial changes
6 Liaison Reports

6.1 North America Compound Semiconductors Materials Committee

James Oliver presented this report for the North American Semiconductor Materials Committee. There were no questions.

Attachment 1: CSM NA TC Liaison report 05262017

7 New Business

None

8 Action Item Review

8.1 New Action Items

None

9 Next Meeting and Adjournment

- SEMICON Europa 2018, Munich (preliminary date = 13. Nov 2018 – final date to be fixed when SEMICON Meeting schedule is available.)
- ECS Spring Meeting 2019 is intended to be in conjunction with some other semiconductor related event, e.g. DGKK Arbeitskreissitzung (German Crystal Growth Society) details to be discussed.

Respectfully submitted by:
These minutes are respectfully submitted by:

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Minutes approved by:
Arnd Weber