



PV Committee China TC Chapter
PV Materials Committee China TC Chapter
Joint Meeting Summary and Minutes

China Fall Standards Meeting 2022
 November 4th and November 12th, 2022, 13:00-15:00
 OVTCCM, China

TC Chapter Announcements

Next TC Chapter Meeting

TBD, China, 2023

Table 1 Meeting Attendees

Italics indicate virtual participants

Co-Chairs: *Dengyuan Song (DASOLAR)*

SEMI Staff: *Cassie Li, Ein Wu*

| <i>Company</i> | <i>Last</i> | <i>First</i> | <i>Company</i> | <i>Last</i> | <i>First</i> |
|---------------------------|-------------|--------------|------------------------------|-------------|--------------|
| DASOLAR | Song | Dengyuan | LINTON | Li | Zhixin |
| RUNERGY | Chen | Rulong | Chint Solar | Xue | Xinying |
| Sinosico | Yan | Dazhou | RedSolar | Cai | Xianwu |
| CSI | Zhang | Guangchun | Shenzhen SC | Tan | Haoyun |
| CSI | Xu | Tao | Shanghai Jiaotong University | Zhang | Zhen |
| NAURA | Li | Buzhong | Hanergy | Bai | Yan |
| NAURA | Tian | Tao | JNU | Mai | Yaohua |
| JNU | Wu | Shaohang | AikoSolar | Fukui | Kenji |
| LONGi | Zhou | Rui | Shenzhen SC | Li | Shijun |
| Trinasolar | Zhou | Wei | Hanergy | Chen | Changxinzi |
| CSI | Guo | Suqin | Rutech | Xu | Fan |
| DASOLAR | Xu | Xingxing | NAURA | Sun | Pengtao |
| Trinasolar | Zhou | Yujia | Chint Solar | Zhou | Chengjun |
| ZhongHuan | Zhang | Xuenan | SUNLAND | Zhu | Jingbing |
| Leadmicro | Li | Weiming | Chint Solar | Zhang | Yue |
| Chint Solar | Wang | Jianing | Red Solar | Yang | Yao |
| SAFEST | Lu | Wenfeng | Henkel | Zhang | Jessica |
| Chint Solar | Li | Keqing | MDEP | LV | Jinbiao |
| Chint Solar | Chen | Pianpian | SAFEST | Lu | Wenfeng |
| Chint Solar | Lin | Sainv | LONGi | Fu | Nannan |
| Chint Solar | Wang | Shipeng | UtmoLight | Yu | Zhenrui |
| Xinyang Normal University | Lu | Xiaoman | LDK Solar | Li | Jianmin |



| Company | Last | First | Company | Last | First |
|----------|-------|-----------|------------------|--------|-----------|
| HNCERI | Wang | Lichuang | LDK Solar | Luo | Hongzhi |
| CSI | Yang | Lianli | YONGZ TECHNOLOGY | Wei | Qingzhu |
| CSI | Wu | Yutong | YONGZ TECHNOLOGY | Jiang | Jianhui |
| CSI | Lv | Ruirui | Yong Xiang | Liu | Yifeng |
| Hanergy | Wu | Zhenyu | Yong Xiang | Wang | Yaping |
| Yingli | Li | Yingye | Yongxiang | Wang | Tianyou |
| Yingli | Lang | Fang | SunChine | Li | Xiang |
| Yingli | Yu | Bo | Darbond | Yang | Hen |
| Yingli | Wang | Xiuxiang | Fujian Metrology | Li | Jiansheng |
| LONGi | Ren | Gaigai | Fujian Metrology | Luo | Haiyan |
| Talesun | Qian | Hongqiang | CESI | Chen | Xianda |
| DASOLAR | Huang | Chenru | CPVT | Lu | Jiayan |
| Jingrui | Li | Lu | CPVT | Pan | Sheng |
| SUNTECH | Yan | Tingting | CPVT | Ding | Shanbin |
| JA Solar | Wang | Zhi | CPVT | Huang | Wenhao |
| NAURA | Xiong | Li | Rutech | Ouyang | Jieyu |

Table 2 Leadership Changes

| WG/TF/SC/TC Name | Previous Leader | New Leader |
|------------------------|--|--|
| <i>PV</i> | | |
| Cochair | Guangchun Zhang – CSI | Dengyuan Song – DASOLAR |
| PV Module TF | Wei Zhou – Trina Solar Zhen Zhang -- Hohai University Jingbing Zhu – Sunman Liang Luo – Red Solar | Wei Zhou – Trina Solar Zhen Zhang – Shanghai Jiaotong University Jingbing Zhu – Sunman Liang Luo – Red Solar |
| Thin Film PV Module TF | Yaohua Mai – JINAN University Xinwei Niu – JA Solar Zhen Zhang – Hohai University Zhenrui Yu – UtMost Light Ganhua Fu – CNBM | Yaohua Mai – JINAN University Xinwei Niu – JA Solar Zhen Zhang – Shanghai Jiaotong University Zhenrui Yu – UtMost Light Ganhua Fu – CNBM |
| <i>PV Material</i> | | |
| Cochair | Guangchun Zhang – CSI | Dengyuan Song – DASOLAR |

Table 3 Committee Structure Changes

| Previous WG/TF/SC Name | New WG/TF/SC Name or Status Change |
|-------------------------------|------------------------------------|
| <i>Photovoltaic</i> | |
| None | |
| <i>Photovoltaic Materials</i> | |
| None | |



Table 4 Ballot Results

| <i>Document #</i> | <i>Document Title</i> | <i>Committee Action</i> |
|---------------------|--|--|
| <i>PV</i> | | |
| 6700 | New Standard: Test Method of Wind Uplift Resistance for Photovoltaic Modules Roof (BIPV) | Passed |
| 6542 | New Standard: Guide for Scrap Judgement of Photovoltaic Modules in Building | Passed with Technical Changes. Ratification ballot to be issued. |
| <i>PV Materials</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 Activities Approved by the GCS between meetings of the TC Chapter

| <i>#</i> | <i>Type</i> | <i>SC/TF/WG</i> | <i>Details</i> |
|-------------------------------|-------------|-----------------|----------------|
| <i>Photovoltaic</i> | | | |
| None | | | |
| <i>Photovoltaic Materials</i> | | | |
| None | | | |

Table 6 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> |
|---------------------|-------------|-----------------|----------------|
| <i>PV</i> | | | |
| None | | | |
| <i>PV Materials</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 7 Authorized Ballots

| <i>#</i> | <i>When</i> | <i>TF</i> | <i>Details</i> |
|---------------------|-------------|-----------|--|
| <i>PV</i> | | | |
| 6113 | Cycle 1-23 | Module TF | New Standard: Test Method for Abrasion Resistance of the Polymer Backsheet of Crystalline Silicon Solar Modules |
| 6872 | Cycle 1-23 | Cell TF | Revision to SEMI PV75-1016, Test Method on Cell Level for Potential-induced-degradation Susceptibility of Solar Cells and Module Encapsulation Materials |
| <i>PV Materials</i> | | | |
| None | | | |



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

| # | TF | Title | Expiration Date |
|-------------------------------|----|-------|-----------------|
| <i>Photovoltaic</i> | | | |
| None | | | |
| <i>Photovoltaic Materials</i> | | | |
| None | | | |

Table 9 SNARF(s) Abolished

| # | TF | Title |
|---------------------|----|-------|
| <i>PV</i> | | |
| None | | |
| <i>PV Materials</i> | | |
| None | | |

Table 10 Standard(s) to receive Inactive Status

| Standard Designation | Title |
|-------------------------------|-------|
| <i>Photovoltaic</i> | |
| None | |
| <i>Photovoltaic Materials</i> | |
| None | |

Table 11 Table 10 Standard(s) to receive Withdrawal Status

| Standard Designation | Title |
|----------------------|-------|
| <i>PV</i> | |
| None | |
| <i>PV Materials</i> | |
| None | |

Table 12 New Action Items

| Item # | Assigned to | Details |
|--------|-------------------------|--|
| 1 | PV Equipment Task Force | Study and discussion of Graphite Carrier |

Table 13 Previous Meeting Action Items

| Item # | Assigned to | Details |
|--------|-------------|---------|
| None | | |

1 Welcome, Reminders, and Introductions

Committee co-chair Dengyuan Song called the meeting to order at 13:30.



2 Review of Previous Meeting Minutes

The TC Chapter reviewed the minutes of the previous meeting.

Motion: To approve the minutes of the previous meeting as written

By / 2nd: Zhixin Li (Linton)/ Dazhou Yan (SINOSICO)

Discussion: None

Vote: 21Y - 0 N. Total 21 companies. Motion Passed.

Attachment: 3 China PV&PVM TC Joint Spring Meeting Minutes 20220415-v1

3 Liaison Reports

None

4 SEMI Staff Report

Cassie Li (SEMI) gave the SEMI Staff Report. Of note:

Action Item:

- Standards Technical Committees
- 2022 Critical Dates for SEMI Standards Ballots
- 2023 Critical Dates for SEMI Standards Ballots
- SEMI Standards Publications
- China PV&PV Materials TC Update

Attachment: 4 SEMI Staff Report 20221104-v1

4.1 Other SDO (Standards Development Organization) Update

- None

5 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.

5.1 Document 6700, New Standard: Test Method of Wind Uplift Resistance for Photovoltaic Modules Roof (BIPV)

Motion: Xinying Xue (Chint Solar) moved that this document passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review.

By / 2nd: Xinying XUE (Chint Solar) / Zhixin LI (Linton)

Discussion: None

Vote: 21 in favor and 0 opposed. (Total 21 companies. 0 companies abstain.) Motion passed.

Attachment: Ballot Report 6700

5.2 Document 6542, New Standard: Guide for Scrap Judgement of Photovoltaic Modules in Building

Motion: Yan Bai (Hanergy) moved that this document passed TC Chapter review with technical changes and with or without editorial changes and will be forwarded to the ISC A&R SC for procedural review. A Ratification Ballot will be issued to verify the technical changes.

By / 2nd: Yan BAI (Hanergy) / Zhixin LI (Linton)



Discussion: Weiming Li (Leadmicro): The negative is worth to consider.
Guangchun Zhang (CSI): The reason from the TF is good. The contract between both sides needs a standard.
Wei Zhou (Trina): We should consider from the using scenarios to show the value of the standard.
Yan Bai (Hanergy): Due to the using time limitation, no one can confirm whether it is safe or not if exceed the time limitation. So we need this standard.

Vote: 21 in favor and 0 opposed. (Total 21 companies. 0 companies abstain.) Motion passed.

Attachment: Ballot Report 6542

6 Subcommittee and Task Force Reports

6.1 PV Silicon Raw Materials Task Force

None

7 SNARF Abolished

None

8 Task Force Report

8.1 Crystalline Silicon Solar Cell Task Force

Dengyuan SONG (DASOLAR) reported for the Crystalline Silicon Solar Cell Task Force. This report contained information on:

Action Item:

- Introduced the task force’s leaders and members
- Introduced published standards.
- Working on
 - 6872: Revision to PV75-1016: Test Method on Cell Level for Potential-induced-degradation Susceptibility of Solar Cells and Module Encapsulation Materials (电池以及组件封装材料 PID 敏感性测试)

Attachment: 2 2022 年秋季会议-电池工作组汇报 PPT11.11(1)

8.2 Building Integrated Photovoltaic (BIPV) Task Force

Dengyuan SONG (DASOLAR) reported for the Building Integrated Photovoltaic (BIPV) Task Force. This report contained information on:

Action Item:

- Introduced the task force’s leaders and members
- Introduced published standards
- Working on
 - Doc. 6542, Guide for Scrap Judgement of Photovoltaic modules in building
 - Doc. 6700, Test Methods of Wind Uplift Resistance for Roof-Top Building Integrated Photovoltaics (BIPV)
- Work Plan for the Next Step

Attachment: 3 2022 年秋季会议-BIPV 工作组汇报 PPT11.11(1)

8.3 PV Module Task Force

Wei ZHOU (TrinaSolar) reported for the PV Module Task Force. This report contained information on:

Action Item:

- Introduced the task force's leaders and members
- Introduced published standards
- Working on
 - Doc 6113, Test Method for Abrasion Resistance of the Polymer Backsheet of Crystalline Silicon Solar Modules

Attachment: 4 SEMI PV Module TF Report 2022-11-11

8.4 PV Equipment Task Force

Buzhong Li (NAURA) reported for the PV Equipment Task Force. This report contained information on:

Action Item:

- Introduced the task force's leaders and members
- Introduced published standards
- Document request abolished
 - Doc. 5983D, Test Method for In-line Sheet Resistance Inspection Using the Junction Photo-Voltage Method
- Work Plan for the Next Step

Attachment: 5 SEMI 中国光伏标委会设备工作组工作汇报(2022 秋季会议)-202201108(密级：不涉密) (1)

8.5 Thin Film PV Modules Task Force

Yaohua Mai ((JINAN University) reported for the Thin Film PV Modules Task Force. This report contained information on:

Action Item:

- Introduced the task force's leaders and members

Attachment: 6 Thin Film PV Modules TF Report Nov.12th, 2022

9 Old Business

9.1 Refer to Table 12 Previous Meeting Action Items

10 New Business

10.1 Requests for ballots in Cycle of 2023

9.1.1 Doc. 6113, New Standard: Test Method for Abrasion Resistance of the Polymer Backsheet of Crystalline Silicon Solar Modules

Motion: Approve Document 6113 for Letter Ballot in Cycle 1-23.

By / 2nd: Lianli YANG (CSI) / Zhixin LI (Linton)



Discussion: Jingbing Zhu (SUNLAND):The difference in sands will make the difference corrode influence in materials. Is there any definition?

Lianli Yang (CSI): Yes, we have definitions about that.

Vote: 33 in favor and 0 opposed. (Total 33 companies. 0 companies abstain.) Motion passed.

Attachment: 7 SEMI 晶体硅太阳能电池组件用聚合物背板耐磨性能测试方法 20221111

9.1.2 Doc. 6872, Revision to SEMI PV75-1016, Test Method on Cell Level for Potential-induced-degradation Susceptibility of Solar Cells and Module Encapsulation Materials

Motion: Approve Document 6872 for Letter Ballot in Cycle 1-23.

By / 2nd: Yutong WU (CSI) / Zhixin LI (Linton)

Discussion: Jingbing Zhu (SUNLAND): Is there any consideration other than Na for PID

Dengyuan Song (DASOLAR): Na is universal.

Vote: 29 in favor and 0 opposed. (Total 29 companies. 0 companies abstain.) Motion passed.

Attachment: 8 20221112 Revision to SEMI PV75-1016 -- Draft Document 6872

10.2 *New SNARFs*

None

10.3 *Five-Year-Review*

None

10.4 *SNARF(s) Granted a One-Year Extension*

None

11 Next Meeting and Adjournment

The next meeting of the PV & PV Materials China TC Chapter is TBD.

For more information, please visit Standards Calendar at <http://www.semi.org/en/standards>

Adjournment: 15:00

Respectfully submitted by:

Cassie Li

SEMI China

Phone: 86-21-60277654

Email: cassie.li@semichina.org

Minutes tentatively approved by:



| | |
|--|------------|
| Dengyuan Song (DASOLAR), PV Committee and PV Materials Committee China TC Chapter Co-chair | 2022.11.21 |
|--|------------|

Table 14 Index of Available Attachments^{#1}

| <i>Title</i> | <i>Title</i> |
|--|--|
| 0 Chinese SEMI Standard Meeting Reminders | 1 China PV Standards Committee Fall Meeting 2022 Agenda - v4 |
| 2 2022 年秋季会议-电池工作组汇报 PPT11.11(1) | 3 2022 年秋季会议-BIPV 工作组汇报 PPT11.11(1) |
| 4 SEMI PV Module TF Report 2022-11-11 | 5 SEMI 中国光伏标委会设备工作组工作汇报(2022 秋季会议)-202201108(密级：不涉密) (1) |
| 6 Thin Film PV Modules TF Report Nov.12th, 2022 | 7 Background Statement for SEMI Draft Document 6113 |
| 7 SEMI 晶体硅太阳能电池组件用聚合物背板耐磨性能测试方法 20221111 | 7 组件工作组 组内投票统计（背板耐磨 20221108） |
| 8 20221112 Revision to SEMI PV75-1016 -- Draft Document | 8 SEMI Draft Document 6872 |
| 8 SEMI 晶体硅太阳能电池工作组 组内投票统计（PID 敏感测试 20221109） | 2 China PV Standards Committee Fall Meeting 2022 Agenda - Cassie 用 |
| 3 China PV&PVM TC Joint Spring Meeting Minutes 20220415-v1 | 4 SEMI Staff Report 20221104-v1 |
| 5 6700 tally summary | 6 6542 tally summary |
| Ballot Report 6542 | Ballot Report 6700 |
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#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.