



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

China Spring Standards Meeting 2023

April 13th, 2023, 10:00-17:00

Zhuhai, Guangdong

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, Isadora Jin

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
DASOLAR	Song	Dengyuan	LINTON	Li	Zhixin
DASOLAR	Xu	Xingxing	LINTON	Liu	Hai
DASOLAR	Huang	Chenru	LINTON	Liu	Erfei
Sunchine	Wang	Tong	Shenzhen SC	Li	Shijun
CSI	Zhang	Guangchun	Shenzhen SC	Tan	Haoyun
CSI	Xu	Tao	JNU	Wu	Shaohang
CSI	Guo	Suqin	AikoSolar	Fukui	Kenji
CSI	Lv	Ruirui	AikoSolar	Liu	Songmin
NAURA	Li	Buzhong	RUNERGY	Chen	Rulong
NAURA	Sun	Pengtao	Chint Solar	Zhou	Chengjun
NAURA	Tian	Tao	Chint Solar	Xue	Xinying
NAURA	Xiong	Li	Chint Solar	Wang	Jianing
Trinasolar	Zhou	Wei	<i>Chint Solar</i>	<i>Lin</i>	<i>Sainv</i>
Trinasolar	Zhou	Yujia	LDK Solar	Li	Jianmin
ZhongHuan	Zhang	Xuenan	Maluo Energy	Zou	Lizhu
Leadmicro	Li	Weiming	Red Solar	Yang	Yao
SAFEST	Lu	Wenfeng	Red Solar	Cai	Xianwu
SAFEST	Liu	Xiaoxia	MDEP	Lv	Jinbiao
Sinosico	Yan	Dazhou	Rutech	Xu	Fan
<i>Yingli</i>	<i>Li</i>	<i>Yingye</i>	YONGZ TECHNOLOGY	Wei	Qingzhu
Yingli	Yu	Bo	YONGZ TECHNOLOGY	Jiang	Jianhui
<i>Yingli</i>	<i>Wang</i>	<i>Xiuxiang</i>	SUNTECH	Yan	Tingting



<i>JA Solar</i>	<i>Xu</i>	<i>Desheng</i>	<i>XYNU</i>	<i>Lu</i>	<i>Xiaoman</i>
<i>SUNTECH</i>	<i>Yan</i>	<i>Tingting</i>			

Table 2 Leadership Changes

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>
<i>PV</i>		
<i>PV Module TF</i>	<i>Wei Zhou – Trina Solar Zhen Zhang -- Shanghai Jiaotong University Jingbing Zhu – Sunman Liang Luo – Red Solar</i>	<i>Wei Zhou – Trina Solar Zhen Zhang – Shanghai Jiaotong University Jingbing Zhu – H2Lab Liang Luo – Red Solar</i>
<i>PV BIPV TF</i>	<i>Dengyuan Song – DASOLAR Jingbin Zhu – Sunman Chengjun ZHOU – ChintSolar Jian Ding – Hanergy Xiuxiang WANG – YINGLI</i>	<i>Dengyuan Song – DASOLAR Jingbin Zhu – H2Lab Chengjun ZHOU – ChintSolar Jian Ding – Hanergy Xiuxiang WANG – YINGLI</i>
<i>PV Material</i>		
<i>None</i>		

Table 3 Committee Structure Changes

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

Table 4 Ballot Results

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>
<i>PV</i>		
<i>6113</i>	<i>New Standard: Test Method for Abrasion Resistance of the Polymer Backsheet of Crystalline Silicon Solar Modules</i>	Failed
<i>6872</i>	<i>Revision to SEMI PV75-1016, Test Method on Cell Level for Potential-induced-degradation Susceptibility of Solar Cells and Module Encapsulation Materials</i>	Passed
<i>PV Materials</i>		
<i>None</i>		

#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>			
<i>None</i>			
<i>Photovoltaic Materials</i>			



Table 5 Activities Approved by the GCS between meetings of the TC Chapter

#	Type	SC/TF/WG	Details
None			

Table 6 Authorized Activities

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

#	Type	SC/TF/WG	Details
<i>PV</i>			
	SNARF	PV Equipment Task Force	New Standard: Guide for Tube PECVD Graphite Boat Materials for Solar Cell Production
	SNARF	PV Equipment Task Force	Reapproval of SEMI PV 81-0318, Guide for Specifying Low Pressure Horizontal Diffusion Furnace
7047	SNARF	PV Module Task Force	Reapproval of SEMI PV82-0318, Specification for Terrestrial Dual-Glass Module with Crystalline Silicon Solar Cell
7048	SNARF	PV Module Task Force	Reapproval of SEMI PV83-0318, Guide for Sample Preparation Method for Photovoltaic Backsheet Performance Tests
7049	SNARF	PV Module Task Force	Reapproval of SEMI PV85-1018, Practice for Metal Wrap Through (MWT) Back Contact Photovoltaic (PV) Module Assembly
7050	SNARF	Crystalline Silicon Solar Cell Task Force	Reapproval of SEMI PV87-1018, Test Method for Peeling Force Between Electrode and Ribbon/Back Sheet
7051	SNARF	PV Silicon Raw Materials Task Force	Reapproval of SEMI PV88-1018, Test Method for Determination of Hydrogen in Photovoltaic (PV) Polysilicon by Inert Gas Fusion Infrared Absorption Method
<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

#	When	TF	Details
<i>PV</i>			
None			
<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>		
6113	SNARF	New Standard: Test Method for Abrasion Resistance of the Polymer Backsheet of Crystalline Silicon Solar Modules
<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
None		

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 10:30.

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)/ Rulong Chen (Runergy)
Discussion: None
Vote: 22Y - 0 N. Total 22 companies. Motion Passed.
Attachment: 3 China PV&PVM TC Joint Fall Meeting Minutes 20221104-v1

3 Liaison Reports

None

4 SEMI Staff Report

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

Action Item:

- Standards Technical Committees
- 2023 Critical Dates for SEMI Standards Ballots
- SEMI Standards Publications
- 5 Year Review List
- A&R SC Membership
- Organization chart for China PV Committee
- Organization chart for China PVM Committee
- China PV&PV Materials TC Update

Attachment: 4 SEMI Staff Report 20230413-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 6113, New Standard: Test Method for Abrasion Resistance of the Polymer Backsheet of Crystalline Silicon Solar Modules

Motion: Tao Xu (CSI) moved that This Document failed TC Chapter review and work will be discontinued.
By / 2nd: Tao Xu (CSI) / Rulong Chen (Runergy)
Discussion: Dengyuan Song (DASOLAR): Standards cannot contradict. It is not good if the test results are different.
Rulong Chen (Runergy): Before the SNARF establishment, we should deeply discuss.
Vote: 23 in favor and 0 opposed. (Total 23 companies. 0 companies abstain.) Motion passed.

Attachment: 10 6113 tally summary

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

Motion: Tao Xu (CSI) 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: Tao Xu (CSI) / Zhixin LI (Linton)

Discussion: Tao Xu (CSI): This issue is out of scope for revision
Shijun Li (ShenZhen S.C): Absolutely right. This is a revision standard.

Vote: 23 in favor and 0 opposed. (Total 23 companies. 0 companies abstain.) Motion passed.

Attachment: A&R report 6872

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

Rulong CHEN (Runergy) 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: 5 2022 年秋季会议-电池工作组汇报 PPT4.13

8.2 Building Integrated Photovoltaic (BIPV) Task Force

Xiuxiang WANG (YINGLI) 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. R6542, 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: 6 2023 年春季会议-BIPV 工作组汇报 PPT4.13-V2

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
- Reapproval Document

Attachment: 7 SEMI PV Module TF Report 2023-4-13(更新)

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
- New SNARF application
- Work Plan for the Next Step

Attachment: 8 SEMI 中国光伏标委会设备工作组工作汇报(2023 春季会议)-20230413(不涉密) (1)(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
- New Activity Discussion

Attachment: 9 Thin Film PV Modules TF Report 2023

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

None



10.2 *New SNARFs*

10.2.1 SNARF, New Standard, Guide for Tube PECVD Graphite Boat Materials for Solar Cell Production

Motion: Approve the SNARF.
By / 2nd: Buzhong LI (NAURA) / Zhixin LI (Linton)
Discussion: Dengyuan SONG (DASOLAR): This refers to the issue of PV industry.
Weiming LI (Leadmiro): It is very significant to do a series of standards.
Vote: 23 in favor and 0 opposed. (Total 23 companies.) Motion passed.
Attachment: 12 Guide for Tube PECVD Graphite Boat Materials for Solar Cell Production

10.3 *Five-Year-Review*

10.3.1 5-Year-Review SNARF, SEMI PV81-0318, New Standard: Guide for Specifying Low Pressure Horizontal Diffusion Furnace

Motion: Approve the SNARF for 5-Year-Review.
By / 2nd: Buzhong LI (NAURA) / Zhixin LI (LINTON)
Discussion: None
Vote: 23 in favor and 0 opposed. (Total 23 companies.) Motion passed.
Attachment: 13 SNARF_PV81-0318 NAURA

10.3.2 5-Year-Review SNARF, SEMI PV82-0318, New Standard: Specification for Terrestrial Dual-Glass Module with Crystalline Silicon Solar Cell

Motion: Approve the SNARF for 5-Year-Review.
By / 2nd: Wei ZHOU (Trina Solar) / Rulong CHEN (Runergy)
Discussion: None
Vote: 23 in favor and 0 opposed. (Total 23 companies.) Motion passed.
Attachment: 14 SNARF_PV82-0318 TrinaSolar

10.3.3 5-Year-Review SNARF, SEMI PV83-0318, New Standard: Guide for Sample Preparation Method for Photovoltaic Backsheet Performance Tests

Motion: Approve the SNARF for 5-Year-Review.
By / 2nd: Xiuxiang WANG (YINGLI) / Zhixin LI (LINTON)
Discussion: None
Vote: 23 in favor and 0 opposed. (Total 23 companies.) Motion passed.
Attachment: 15 SNARF_PV83-0318 Yingli

10.3.4 5-Year-Review SNARF, SEMI PV85-1018, New Standard: Practice for Metal Wrap Through (MWT) Back Contact Photovoltaic (PV) Module Assembly

Motion: Approve the SNARF for 5-Year-Review.
By / 2nd: Wei ZHOU (Trina Solar) / Dazhou YAN (SINOSICO)



Discussion: None
Vote: 23 in favor and 0 opposed. (Total 23 companies.) Motion passed.
Attachment: 16 SNARF_PV85-1018 Hohai University

10.3.5 5-Year-Review SNARF, SEMI PV87-1018, New Standard: Test Method for Peeling Force Between Electrode and Ribbon/Back Sheet

Motion: Approve the SNARF for 5-Year-Review.
By / 2nd: Rulong CHEN (Runergy) / Zhixin LI (LINTON)
Discussion: None
Vote: 23 in favor and 0 opposed. (Total 23 companies.) Motion passed.
Attachment: 18 SNARF_PV87-1018 Talesun

10.3.6 5-Year-Review SNARF, SEMI PV88-1018, New Standard: Test Method for Determination of Hydrogen in Photovoltaic (PV) Polysilicon by Inert Gas Fusion Infrared Absorption Method

Motion: Approve the SNARF for 5-Year-Review.
By / 2nd: Jiayan LU (CPVT) / Tao XU (CSI)
Discussion: None
Vote: 23 in favor and 0 opposed. (Total 23 companies.) Motion passed.
Attachment: 19 SNARF_PV88-1018 CPVT

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: 17:30

Respectfully submitted by:

Cassie Li
 SEMI China
 Phone: 86-21-60277645
 Email: cassieli@semi.org

Minutes tentatively approved by:

Dengyuan Song (DASOLAR), PV Committee and PV Materials Committee China TC Chapter Co-chair	2023.5.5
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Table 14 Index of Available Attachments#1

<i>Title</i>	<i>Title</i>
1 Chinese SEMI Standard Meeting Reminders	2 Agenda
3 China PV&PVM TC Joint Fall Meeting Minutes 20221104-v1	4 SEMI Staff Report 20230413-v1
5 2022 年秋季会议-电池工作组汇报 PPT4.13	6 2023 年春季会议-BIPV 工作组汇报 PPT4.13-V2
7 SEMI PV Module TF Report 2023-4-13(更新)	8 SEMI 中国光伏标委会设备工作组工作汇报(2023 春季会议)-20230413(不涉密) (1)(1)
9 Thin Film PV Modules TF Report 2023	10 6113 tally summary
A&R report 6872	12 Guide for Tube PECVD Graphite Boat Materials for Solar Cell Production
12 SEMI SNARF- Guide for Tube PECVD Graphite Boat Materials for Solar Cell Production	13 SNARF_PV81-0318 NAURA
14 SNARF_PV82-0318 TrinaSolar	15 SNARF_PV83-0318 Yingli
16 SNARF_PV85-1018 Hohai University	18 SNARF_PV87-1018 Talesun
19 SNARF_PV88-1018 CPVT	

#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.