



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

China Spring Standards Meeting 2020

June 30th, 2020, 09:00-17:00

Parkyard Hotel, No.699 Bibo Road, Shanghai, China.

TC Chapter Announcements

Next TC Chapter Meeting

China Fall Standards Meeting 2020

TBD, 2020, 09:00-17:00

Hangzhou, China

Table 1 Meeting Attendees

Italics indicate virtual participants

Co-Chairs: Guangchun Zhang (CSI)

SEMI Staff: Daniel Qi – SEMI China, Isadora Jin – SEMI China, Ein Wu – SEMI China

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
Canadian Solar	Zhang	Guangchun	Canadian Solar	Xu	Tao
JA Solar	Niu	Xinwei	Canadian Solar	Guo	Suqin
JA Solar	Huang	Shuwen	JA Solar	Xu	Desheng
Runergy	Chen	Rulong	Risen	Huang	Qiang
Red Solar	Long	Hui	Red Solar	Cai	Xianwu
Rutech	Ouyang	Jieyu	Henkel	Jakcy	Zhang
Lantai	Han	Qiang	Henkel	Robin	Fu
TÜV Rheinland	Chen	Ling	TÜV Rheinland	Sun	Yimeng
JINAN University	Mai	Yaohua	Hohai University	Zhang	Zhen
FJL	Li	Jiansheng	SPIC PV	Lu	Gang
Linton	Liu	Erfei	ASIC PY	Chen	Chao
GCL	Hu	Dongli	GCL	Wang	Bin
GCL	Liu	Hai	LONGi	Liu	Songmin
LONGi	Zhou	Rui	LONGi	Fu	Nannan
LONGi	Ren	Gaigai	LONGi	Wu	Linyong
Safest	Liu	Xiaoxia	Safest	Lu	Wenfeng
SEMILAB	Huang	Li	SINOSICO	Chu	Dongxu
Trina Solar	Zhou	Wei	Trina Solar	Zhong	Junjie
Trina Solar	Yan	Ping	Trina Solar	Jin	Yunhong



<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
Trina Solar	Wang	Yu	SIMT	Chen	Liming
Aikosolar	Yang	Guoming	Aikosolar	Xiao	Yafan
Leadmicro	Li	Weiming	Aikosolar	Zhang	Linhai
Gsola	Zhang	Hexian	Gsola	Liu	Jiao
Gsola	Wang	Xiaoyin	Gsola	Chen	Xiao
Gsola	Deng	Baowei	Sunland	Zhu	Jingbing
YUANRONG	Hong	Qishan	YUANRONG	Jin	Yong
Shenzhen S.C	Li	Junyang	Shenzhen S.C	Li	Shijun
GG SOLAR	Wu	Xiexiang	YONGXIANG	Wang	Yaping
TALESUN	Fu	Xin	Autoway System	Lu	Qiankun
Jolywood	Liu	Zhifeng	Jolywood	Chen	Jia
SUNTECH	Chen	Liping	SUNTECH	Yan	Tingting
Chnenergy	Dang	Wenhui	Sunchine	Hong	Junjie
Jinko	Jiang	Yantong	CHINT	Wang	Shipeng
CHINT	Gan	Haiping	CHINT	Li	Jiawei
CHINT	Zhou	Shengyong	SIMIT	Zhang	Yating
Wuxi Test	Jiang	Wei		Lv	Jinbiao

Table 2 Leadership Changes

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

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>	
Thin Film PV Module Task Force	Inactive
PV Mobile Energy Task Force	Inactive
Multi-wire Saws Task Force	Merge into PV Equipment Task Force
PV Diffusion Furnace Test Methods Task Force	
Testing Equipment Task Force	
None	Pollutant Risk Control Task Force
<i>Photovoltaic Materials</i>	
None	



Table 4 Ballot Results

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>
<i>Photovoltaic</i>		
6541	New Standard: Classification of Building Integrated Photovoltaic (BIPV)	Failed and return to TF for re-work and rebalot.
6608	Reapproval of PV53-0514, Test Method for In-Line Monitoring of Flat Temperature Zone in Horizontal Diffusion Furnace	Passed as balloted
6611	Revision to PV54-0514, Specification for Silver Paste, Used to Contact with N+ Diffusion Layer of Crystalline Silicon Solar Cells	Failed and return to TF for re-work and rebalot.
<i>Photovoltaic Materials</i>		
6607	Reapproval of PV50-1114, Specification for Impurities in Polyethylene Packaging Materials for Polysilicon Feedstock	Passed as balloted
6609	Revision to PV22-0817, Specification for Silicon Wafers for Use in Photovoltaic Solar Cells	Passed with Technical Changes. Ratification ballot to be issued.
6458A	Specification for Silicon Powder Used in Polysilicon Production	Passed as balloted

#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>			
6670	SNARF	Crystalline Silicon Solar Cell TF	Revision to SEMI PV58-0115, Specification for Aluminum Paste Used in Back Surface Field of Crystalline Silicon Solar Cells
6671	SNARF	PV Module TF	Revision to SEMI PV63-0215, Specification for Ultra-Thin Glasses Used for Photovoltaic Modules
<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>Photovoltaic</i>			
6670	SNARF	Crystalline Silicon Solar Cell TF	Revision to SEMI PV58-0115, Specification for Aluminum Paste Used in Back Surface Field of Crystalline Silicon Solar Cells
6660	SNARF	PV Module TF	Reapproval of SEMI PV61-0115, Specification for Framing Tape for Photovoltaic (PV) Modules
6661	SNARF	PV Module TF	Reapproval of SEMI PV62-0215, Terminology for Back Contact Photovoltaic (PV) Cells and Modules
6671	SNARF	PV Module TF	Revision to SEMI PV63-0215, Specification for Ultra-Thin Glasses Used for Photovoltaic Modules
6664	SNARF	Crystalline Silicon Solar Cell TF	Reapproval of SEMI PV65-0715, Test Method Based on RGB for Crystalline Silicon (C-Si) Solar Cell Color



Table 6 Authorized Activities

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

#	Type	SC/TF/WG	Details
6665	SNARF	Crystalline Silicon Solar Cell TF	Reapproval of SEMI PV66-0715, Test Method for Determining the Aspect Ratio of Solar Cell Metal Fingers by Confocal Laser Scanning Microscope
6666	SNARF	Crystalline Silicon Solar Cell TF	SEMI PV67-0815, Test Method for the Etch Rate of a Crystalline Silicon Wafer by Determining the Weight Loss
6667	SNARF	PV Equipment TF	Reapproval of SEMI PV68-0815, Test Method for the Wire Tension of Multi-Wire Saws
<i>Photovoltaic Materials</i>			
6662	SNARF	PV Silicon Raw Materials TF	Reapproval of SEMI PV59-0115, Test Method for Determination of Total Carbon Content in Silicon Powder by Infrared Absorption After Combustion in an Induction Furnace
6663	SNARF	PV Silicon Raw Materials TF	Reapproval of SEMI PV64-0715, Test Method for Determining B, P, Fe, Al, Ca Contents in Silicon Powder for PV Applications by Inductively Coupled Plasma Optical Emission
6668	SNARF	PV Silicon Raw Materials TF	Reapproval of SEMI PV74-0216, Test Method for the Measurement of Chlorine in Silicon by Ion Chromatography

#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>Photovoltaic</i>			
6541A	Cycle 6-2020	BIPV TF	New Standard: Classification of Building Integrated Photovoltaic (BIPV)
6611A	Cycle 6-2020	Crystalline Silicon Solar Cell TF	Revision to PV54-0514, Specification for Silver Paste, Used to Contact with N+ Diffusion Layer of Crystalline Silicon Solar Cells
6069	Cycle 6-2020	PV Module TF	New Standard: Specification for Structural Silicone Adhesive for the Back Rail Fixture on PV Modules
5983D	Cycle 6-2020	PV Equipments TF	New Standard: Test Method for In-line Sheet Resistance Inspection
6670	Cycle 6-2020	Crystalline Silicon Solar Cell TF	Revision to SEMI PV58-0115, Specification for Aluminum Paste Used in Back Surface Field of Crystalline Silicon Solar Cells
6660	Cycle 6-2020	PV Module TF	Reapproval of SEMI PV61-0115, Specification for Framing Tape for Photovoltaic (PV) Modules
6661	Cycle 6-2020	PV Module TF	Reapproval of SEMI PV62-0215, Terminology for Back Contact Photovoltaic (PV) Cells and Modules
6664	Cycle 6-2020	Crystalline Silicon Solar Cell TF	Reapproval of SEMI PV65-0715, Test Method Based on RGB for Crystalline Silicon (C-Si) Solar Cell Color
6665	Cycle 6-2020	Crystalline Silicon Solar Cell TF	Reapproval of SEMI PV66-0715, Test Method for Determining the Aspect Ratio of Solar Cell Metal Fingers by Confocal Laser Scanning Microscope
6666	Cycle 6-2020	Crystalline Silicon Solar Cell TF	SEMI PV67-0815, Test Method for the Etch Rate of a Crystalline Silicon Wafer by Determining the Weight Loss
6667	Cycle 6-2020	PV Equipment TF	Reapproval of SEMI PV68-0815, Test Method for the Wire Tension of Multi-Wire Saws



Table 7 Authorized Ballots

#	When	TF	Details
<i>Photovoltaic Materials</i>			
6662	Cycle 6-2020	PV Silicon Raw Materials TF	Reapproval of SEMI PV59-0115, Test Method for Determination of Total Carbon Content in Silicon Powder by Infrared Absorption After Combustion in an Induction Furnace
6663	Cycle 6-2020	PV Silicon Raw Materials TF	Reapproval of SEMI PV64-0715, Test Method for Determining B, P, Fe, Al, Ca Contents in Silicon Powder for PV Applications by Inductively Coupled Plasma Optical Emission
6668	Cycle 6-2020	PV Silicon Raw Materials TF	Reapproval of SEMI PV74-0216, Test Method for the Measurement of Chlorine in Silicon by Ion Chromatography

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

#	TF	Title	Expiration Date
<i>Photovoltaic</i>			
5983	PV Diffusion Furnace Test Methods TF	New Standard: Test Method for In-line Sheet Resistance Inspection	2021/3/15
6069	PV Module TF	New Standard: Specification for Structural Silicone Adhesive for the Back Rail Fixture on PV Modules	2021/7/29
<i>Photovoltaic Materials</i>			
None			

Table 9 SNARF(s) Abolished

#	TF	Title
<i>Photovoltaic</i>		
6459	Crystalline Silicon Solar Cell Task Force	New Standard: Test Method for Light Induced Degradation of Crystalline Silicon PV Cells at Elevated Temperature
<i>Photovoltaic 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 New Action Items

Item #	Assigned to	Details
China PV-0630-01	PV Committee members	SEMI PV73-0216 to be five-year-review

Table 12 Previous Meeting Action Items

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
China PV-1025-01	PV Committee members	Create PV Equipment TF which can assemble original PV Diffusion Furnace Test Methods TF, Multi-wire Saws TF and Testing Equipment TF

1 Welcome, Reminders, and Introductions

Committee co-chair Guangchun Zhang chaired the meeting and welcomed all attendees. All the attendees introduced themselves. SEMI Staff called the meeting to order at 09:00AM. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed.

Agenda was reviewed.

Attachment: 1. Chinese SEMI Standard Meeting Reminders

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: Rulong Chen (Runergy)/ Yaohua Mai (Jinan University)

Discussion: None

Vote: 35Y - 0 N, (Total 35 companies.) Motion Passed.

Attachment: 2. China PV&PVM TC Joint Fall Meeting Minutes 20191025

3 Liaison Reports

3.1 PV Materials North America TC Chapter

Isadora Jin (SEMI) reported for the PV Materials North America TC Chapter. Of note:

Action Item: Next meeting –SEMICON West. San Francisco CA, Wednesday, July 22, 2020

- The Co-chair of North America PV Materials TC is Hugh Gotts (Air Liquide).
- Ballot Results
 - None
- Ballot authorized for next meeting
 - Reapproval of SEMI PV13 - Test Method for Contactless Excess-Charge-Carrier Recombination Lifetime Measurement in Silicon Wafers, Ingots, and Bricks Using an Eddy-Current Sensor
- Abolished SNARF(s)
 - None

Attachment: 5 PVMaterials NA TC Chapter Liaison Report July 2019

3.2 PV Materials Europe TC Chapter

- None

3.3 PV and PV Materials Japan Joint TC Chapter



Isadora Jin (SEMI) reported for the PV and PV Materials Japan Joint TC Chapter. Of note:

Action Item: Next meeting: SEMI Japan Office, Tokyo, Japan

- The Co-chairs of Japan PV TC are Kazuhiko Kashima (Consultant) and Masaaki Yamamichi (RTS Corporation).
- The Co-chairs of Japan PV Materials TC are Kazuhiko Kashima (Consultant) and Tetsuo Fukuda (Nihon University).
- Ballot Results
 - None
- Five-Year Review
 - SEMI PV60-0115, Test Method for Measurement of Cracks in Photovoltaic (PV) Silicon Wafers in PV Modules by Laser Scanning
 - SEMI PV79-0818, Test Method for Exposure Durability of Photovoltaic (PV) Cells to Acetic Acid Vapor

Attachment: 6 LiaisonReport_JA_PV&PVM_v2

3.4 Photovoltaic Taiwan TC Chapter

Isadora Jin (SEMI) reported for the PV Taiwan TC Chapter. Of note:

Action Item: Next Meeting – Meeting Room 210, 78th Building, No. 195, Section4, Zhongxing Road, Zhudong Township., Hsinchu, Taiwan, September 18, 2020

- The Co-chairs of Taiwan PV TC are T.C. Wu (CMS/ITRI), C.C.(Jay) Lin (PV Guider) and Ray Sung (UL TWN)
- Changes of Task Force Leaders
 - None
- Committee Structure Changes
 - None
- Ballot results:
 - 6537 Reapproval of SEMI PV56-1214, Test Method for Performance Criteria of Photovoltaic (PV) Cells and Modules Package. Pass.
 - 6538 Reapproval of SEMI PV57-1214, Test Method for Current-Voltage (I-V) Performance Measurement of Organic Photovoltaic (OPV) and Dye-Sensitized Solar Cell (DSSC). Pass.
- Authorized Ballots:
 - None
- Authorized SNARFs
 - None
- Abolished SNARF(s)
 - None
- Five-Year Review
 - None

Attachment: 6 20191004_TW PV Liaison Report

3.5 SEMI Staff Report

Isadora Jin (SEMI) gave the SEMI Staff Report. Of note:

Action Item:

- SEMI International Standards Overview
- 2020 Critical Dates for SEMI Standards Ballots
- SEMI Standards Publications
- 5 Year Review List
- A&R SC Membership Update
- Organization chart for China PV&PV Materials Committee
- China Photovoltaic TC Update
- Liaison Relationship with other SDOs

Attachment: 4 SEMI Staff Report 20200630 rev 1

3.6 Other SDO (Standards Development Organization) Update

3.6.1 IEC TC 82 Update

- IEC TC 82 Scope
- IEC TC 82 Summary
- TC 82 Working Groups
- TC 82 Motivation
- ‘PVQAT Effect’ on TC82
- Certifications of PV Plant and Services
- Important New Efforts

Attachment: 8 Outline of IEC TC82 for SEMI_20200528

3.6.2 China Electronics Standardization Institute (CESI) Update

- 光伏标准层级及对应技术组织
- 光伏领域标准化工作动态
- 光伏标准化工作思考

Attachment: 9 中国光伏领域标准化工作介绍-2020.6.30

4 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.

4.1 Document 6541, New Standard: Classification of Building Integrated Photovoltaic (BIPV)

Motion: Weiwei Zhao (GainSolar) moved that the committee approve Document 6541 for Letter Ballot in Cycle 6-2020.

By / 2nd: Weiwei Zhao (GainSolar) / Xianwu Cai (Red Solar)

Discussion: None



Vote: 34 in favor and 1 opposed. (Total 35 companies. 0 companies abstain.) Motion failed and returns to TF for re-work and rebalot.

Attachment: 17 BIPV 的分类标准 (6541) -20200628

4.2 Document 6608, Reapproval of PV53-0514, Test Method for In-Line Monitoring of Flat Temperature Zone in Horizontal Diffusion Furnace

Motion: Xianwu Cai (Red 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: Xianwu Cai (Red Solar) / Yaohua Mai (JINAN University)

Discussion: None

Vote: 35 in favor and 0 opposed. (Total 35 companies.) Motion Passed as balloted.

Attachment: 18 A&R report 6608

4.3 Document 6611, Revision to PV54-0514, Specification for Silver Paste, Used to Contact with N+ Diffusion Layer of Crystalline Silicon Solar Cells

Motion: Rulong Chen (Runergy) moved that this document return to the Task Force for rework and request for Letter Ballot in Cycle 6-20.

By / 2nd: Rulong Chen (Runergy) / Tao Xu (Canadian Solar)

Discussion: Guangchun Zhang (CSI): SEMI PV54 has published over 5 years. IEC's project has not published. There is a logic problem in Ning Li's negative. Please remind Ning Li of this.

Vote: 33 in favor and 2 opposed. (Total 35 companies.) Motion passed and returns to TF for re-work and rebalot in Cycle 6-20.

Attachment: 24 SEMI_16x9_Main_Ballot_Report-6611

4.4 Document 6607, Reapproval of PV50-1114, Specification for Impurities in Polyethylene Packaging Materials for Polysilicon Feedstock

Motion: Wenfeng Lu (Safest) 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: Wenfeng Lu (Safest) / Wei Zhou (TrinaSolar)

Discussion: None

Vote: 35 in favor and 0 opposed. (Total 35 companies.) Motion Passed.

Attachment:

4.5 Document 6609, Revision to PV22-0817, Specification for Silicon Wafers for Use in Photovoltaic Solar Cells

Motion: Nannan Fu (LONGi) 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: Nannan Fu (LONGi) / Wei Jiang (CPVT)

Discussion: Rui Zhou (LONGi): Specification for silicon wafers as a basic standard for device's size is very important, but multiple specifications make more cost for customer is inevitable.

Guangchun Zhang (CSI): SEMI's standard use mainstream silicon wafer size but not limited in every size.

Qiang Huang (Risen): I agree with Cochair and the motion.

Vote: 33 in favor and 2 opposed. (Total 35 companies.) Motion Passed with Technical Changes. Ratification ballot to be issued.

Attachment: 23 SEMI Doc. 6609 Ballot Review ReportV2

4.6 Document 6458A, Specification for Silicon Powder Used in Polysilicon Production

Motion: Dongxu Chu (SINOSICO) 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: Dongxu Chu (SINOSICO)/Tao Xu (Canadian Solar)

Discussion: None

Vote: 33 in favor and 0 opposed. (Total 35 companies. Two companies abstain.) Motion Passed as balloted.

Attachment: 25 SEMI Standards 6458A 汇报-2020 春季会议

5 Subcommittee and Task Force Reports

5.1 PV Silicon Raw Materials Task Force

Wenfeng Lu (Safest) reported for the PV Silicon Raw Materials Task Force. This report contained information on:

Action Item:

- Introduced the task force's leaders and members.
- Introduced published standards.
- Working on
 - Doc 6458A, Specification for Silicon Powder used in Polysilicon Production

Attachment: 10 SEMI PV Task Force Report-PV Silicon Raw Material20200630(1)

5.2 PV Silicon Wafer Task Force

Dongli Hu (GCL) reported for the PV Silicon Wafer Task Force. This report contained information on:

Action Item:

- Introduced the task force's leaders and members.
- Documents in work:
 - Doc. 6609 - Revision to SEMI PV22-0817, Specification for Silicon Wafers for Use in Photovoltaic Solar Cells

Attachment: 11 PV Silicon Wafer TF Report Jun. 30th, 2020

5.3 Crystalline Silicon Solar Cell Task Force

Dengyuan Song (Yingli) 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
 - Doc 5842, New Standard: Test Method for Metal-Wrap-Through Solar Cell Via Resistance
 - Doc 6459, New Standard: Test Method for Light Induced Degradation of Crystalline Silicon PV Cells at Elevated Temperature



6 Old Business

6.1 Refer to Table 12 Previous Meeting Action Items

7 New Business

7.1 Requests for ballots in Cycle 6-20

7.1.1 Doc.6541A, New Standard: Classification of Building Integrated Photovoltaic (BIPV)

Motion: Weiwei Zhao (GainSolar) moved that the committee approve Document 6541 for Letter Ballot in Cycle 6-2020.

By / 2nd: Weiwei Zhao (GainSolar) / Xianwu Cai (Red Solar)

Discussion: None

Vote: 34 in favor and 1 opposed. (Total 35 companies. 0 companies abstain.) Motion failed and returns to TF for rework and rebalot.

Attachment: 17 BIPV 的分类标准 (6541) -20200628

7.1.2 Doc.6611A, Revision to PV54-0514, Specification for Silver Paste, Used to Contact with N+ Diffusion Layer of Crystalline Silicon Solar Cells

Motion: Rulong Chen (Runergy) moved that this document return to the Task Force for rework and request for Letter Ballot in Cycle 6-2020.

By / 2nd: Rulong Chen (Runergy) / Tao Xu (Canadian Solar)

Discussion: Guangchun Zhang (CSI): SEMI PV54 has published over 5 years. IEC's project has not published. There is a logic problem.

Vote: 33 in favor and 2 opposed. (Total 35 companies.) Motion passed.

Attachment: 24 SEMI_16x9_Main_Ballot_Report-6611

7.1.3 Doc.6069, New Standard: Specification for Structural Silicone Adhesive for the Back Rail Fixture on PV Modules

Motion: Junjie Zhong (Trina Solar) moved that the committee accept the PV Module Task Force recommendation to approve the distribution of SEMI Document 6069 for Letter Ballot in Cycle 6 during 2020.

By / 2nd: Junjie Zhong (Trina Solar) / Jingbing Zhu (Sunland)

Discussion: Wei Zhou (Trina): Comments from Henkel are included in document 6069.

Vote: 32 in favor and 1 opposed. (Total 33 companies.) Motion passed.

Attachment: 26 SEMI Draft Document 6069 - 20200628

7.1.4 Doc. 5983D, New Standard: Test Method for In-line Sheet Resistance Inspection

Motion: Hui Long (RedSolar) moved that the committee approve 5983D for Letter Ballot in Cycle 6-20.

By / 2nd: Hui Long (RedSolar) / Xinwei Niu (JA Solar)

Discussion: Please contact Dengjun Wu about the patent issue.

Vote: 34 in favor and 0 opposed. (Total 35 companies. One company abstain.) Motion passed.

Attachment: 15 DOC5983D

7.2 New TFOFs

7.2.1 New Task Force: Pollutant Risk Control Task Force



Motion: Dawei Xin (TÜV Rheinland) moved the Committee to approve the new task force: Pollutant Risk Control Task Force.

By / 2nd: Dawei Xin (TÜV Rheinland) /

Discussion: Guangchun Zhang (CSI): Should this task belong to EHS?
Dawei Xin (TÜV Rheinland): PFOA is widely used in industrial supplies and consumer products.
Shijun Li (Shenzhen S.C): Like PV additive and pipe, otherwise after some material be heat or burned.
Rui Zhou (LONGi): Maybe PFOA is exit in supplier's supplier. Is there any method for test it existence.
Weimin Li (Leadmicro): It is not bad to do anything for health and the environment.
Wei Zhou (Trina Solar): We should do some research about how it exit in the PV industry.

Vote: 32 in favor and 1 opposed. (Total 33 companies.) Motion Passed.

7.3 Five-Year-Review

7.3.1 Doc.6670, Revision to SEMI PV58-0115, Specification for Aluminum Paste Used in Back Surface Field of Crystalline Silicon Solar Cells

Motion: Rulong Chen (Runergy) moved that the committee approve PV58 for Letter Ballot in Cycle 6-2020.

By / 2nd: Rulong Chen (Runergy) / Li Huang (SEMILAB)

Discussion: This Standard need to be revised.

Vote: 31 in favor and 2 opposed. (Total 33 companies.) Motion passed.

Attachment: 29 SNARF_PV 58-0115 revision

7.3.2 Doc.6662, Reapproval of SEMI PV59-0115, Test Method for Determination of Total Carbon Content in Silicon Powder by Infrared Absorption After Combustion in an Induction Furnace

Motion: Wei Jiang (CAMT) moved that the committee approve PV59 for Letter Ballot in Cycle 6-2020.

By / 2nd: Wei Jiang (CAMT) / Li Huang (SEMILAB)

Discussion: This standard is applied in PV industry. It is worth being maintained by Committee.

Vote: 28 in favor and 5 opposed. (Total 33 companies.) Motion passed.

Attachment: 30 SNARF_PV 59-0115 reapproval

7.3.3 Doc.6660, Reapproval of SEMI PV61-0115, Specification for Framing Tape for Photovoltaic (PV) Modules

Motion: Dengyuan Song (YINGLI) moved that the committee approve PV61 for Letter Ballot in Cycle 6-2020.

By / 2nd: Dengyuan Song (YINGLI) / Wei Zhou (Trina Solar)

Discussion: Qiang Han (Lantai): Is double-glazed modules involved?
This standard is applied in PV industry. It is worth being maintained by Committee.

Vote: 30 in favor and 3 opposed. (Total 33 companies.) Motion passed.

Attachment: 31 SNARF_PV61-0115 reapproval

7.3.4 Doc.6661, Reapproval of SEMI PV62-0215, Terminology for Back Contact Photovoltaic (PV) Cells and Modules

Motion: Yunhong Jin (Trina) moved that the committee approve PV62 for Letter Ballot in Cycle 6-2020.

By / 2nd: Yunhong Jin (Trina) / Rulong Chen (Runergy)

Discussion: This standard is applied in PV industry. It is worth being maintained by Committee.

Vote: 27 in favor and 6 opposed. (Total 33 companies.) Motion passed.

Attachment: 32 SNARF_PV62-0215 reapproval



7.3.5 Doc.6671, Revision to SEMI PV63-0215, Specification for Ultra-Thin Glasses Used for Photovoltaic Modules

Motion: Yu Wang (Trina Solar) moved that the committee approve the SNARF for reapproval to PV65
By / 2nd: Yu Wang (Trina Solar) / Rulong Chen (Runergy)
Discussion: Jingbing Zhu (Sunland): Is PV63 suitable for BIPV?
Wenhui Dang (Shenhua): The modules are getting lighter and lighter.
Yu Wang (Trina Solar): Made revision on section 5.3.1, section 6.10.3, section 6.12.1, table 3, table 4 and section 8.11.1
Vote: 22 in favor and 1 opposed. (Total 23 companies.) Motion passed.
Attachment: 33 SNARF_PV63 revision 超薄玻璃申请修订 20200623

7.3.6 Doc.6663, Reapproval of SEMI PV64-0715, Test Method for Determining B, P, Fe, Al, Ca Contents in Silicon Powder for PV Applications by Inductively Coupled Plasma Optical Emission

Motion: Dongxu Chu (SINOSICO) moved that the committee approve PV64 for Letter Ballot in Cycle 6-2020.
By / 2nd: Dongxu Chu (SINOSICO) / Li Huang (SEMILAB)
Discussion: This standard is applied in PV industry. It is worth being maintained by Committee.
Vote: 22 in favor and 1 opposed. (Total 23 companies.) Motion passed.
Attachment: 34 SNARF_PV64-0715 reapproval

7.3.7 Doc.6664, Reapproval of SEMI PV65-0715, Test Method Based on RGB for Crystalline Silicon (C-Si) Solar Cell Color

Motion: Dengyuan Song (YINGLI) moved that the committee approve the SNARF for reapproval to PV65
By / 2nd: Dengyuan Song (YINGLI) / Li Huang (SEMILAB)
Discussion: This standard is applied in PV industry. It is worth being maintained by Committee.
Vote: 20 in favor and 3 opposed. (Total 23 companies.) Motion passed.
Attachment: 35 SNARF_PV65-0715 reapproval

7.3.8 Doc.6665, Reapproval of SEMI PV66-0715, Test Method for Determining the Aspect Ratio of Solar Cell Metal Fingers by Confocal Laser Scanning Microscope

Motion: Dengyuan Song (YINGLI) moved that the committee approve the SNARF for reapproval to PV66
By / 2nd: Dengyuan Song (YINGLI) / Li Huang (SEMILAB)
Discussion: This standard is applied in PV industry. It is worth being maintained by Committee.
Vote: 20 in favor and 3 opposed. (Total 23 companies.) Motion passed.
Attachment: 36 SNARF_PV66-0715 reapproval

7.3.9 Doc.6666, Reapproval of SEMI PV67-0815, Test Method for the Etch Rate of a Crystalline Silicon Wafer by Determining the Weight Loss

Motion: Dengyuan Song (YINGLI) moved that the committee approve the SNARF for reapproval to PV67
By / 2nd: Dengyuan Song (YINGLI) / Li Huang (SEMILAB)
Discussion: This standard is applied in PV industry. It is worth being maintained by Committee.
Vote: 20 in favor and 3 opposed. (Total 23 companies.) Motion passed.
Attachment: 37 SNARF_PV67-0815 reapproval



7.3.10 Doc.6667, Reapproval of SEMI PV68-0815, Test Method for the Wire Tension of Multi-Wire Saws

Motion: Hui Long (Red Solar) moved that the committee approve the SNARF for reapproval to PV68
By / 2nd: Hui Long (Red Solar) / Li Huang (SEMILAB)
Discussion: This standard is applied in PV industry. It is worth being maintained by Committee.
Vote: 19 in favor and 4 opposed. (Total 23 companies.) Motion passed.
Attachment: 38 SNARF_PV68-0815 reapproval

7.3.11 Doc.6668, Reapproval of SEMI PV74-0216, Test Method for the Measurement of Chlorine in Silicon by Ion Chromatography

Motion: Wenfeng Lu (Safest) moved that the committee approve PV74 for Letter Ballot in Cycle 6-2020.
By / 2nd: Wenfeng Lu (Safest) / Li Huang (SEMILAB)
Discussion: This standard is applied in PV industry. It is worth being maintained by Committee.
Vote: 17 in favor and 3 opposed. (Total 20 companies.) Motion passed.
Attachment: 40 SNARF_PV74-0216 reapproval

8 Next Meeting and Adjournment

The next meeting of the PV & PV Materials China TC Chapter is scheduled for TBD, 2020 in Hangzhou, China.

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

Adjournment: 17:30.

Respectfully submitted by:

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SEMI China
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Email: ijin@semi.org

Minutes tentatively approved by:

Guangchun Zhang (CSI), PV Committee and PV Materials Committee China TC Chapter Co-chair	<2020/07>
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Table 13 Index of Available Attachments^{#1}

<i>Title</i>	<i>Title</i>
1 Chinese SEMI Standard Meeting Reminders	2 China PV Standards Committee Spring Meeting 2020 Agenda
4 SEMI Staff Report 20200630 rev1	5 PVMaterials NA TC Chapter Liaison Report July 2019
6 LiaisonReport_JA_PV&PVM_v2	7 20200529_TW PV Liaison Report
8 Outline of IEC TC82 for SEMI_20200528	9 中国光伏领域标准化工作介绍-2020.6.30

