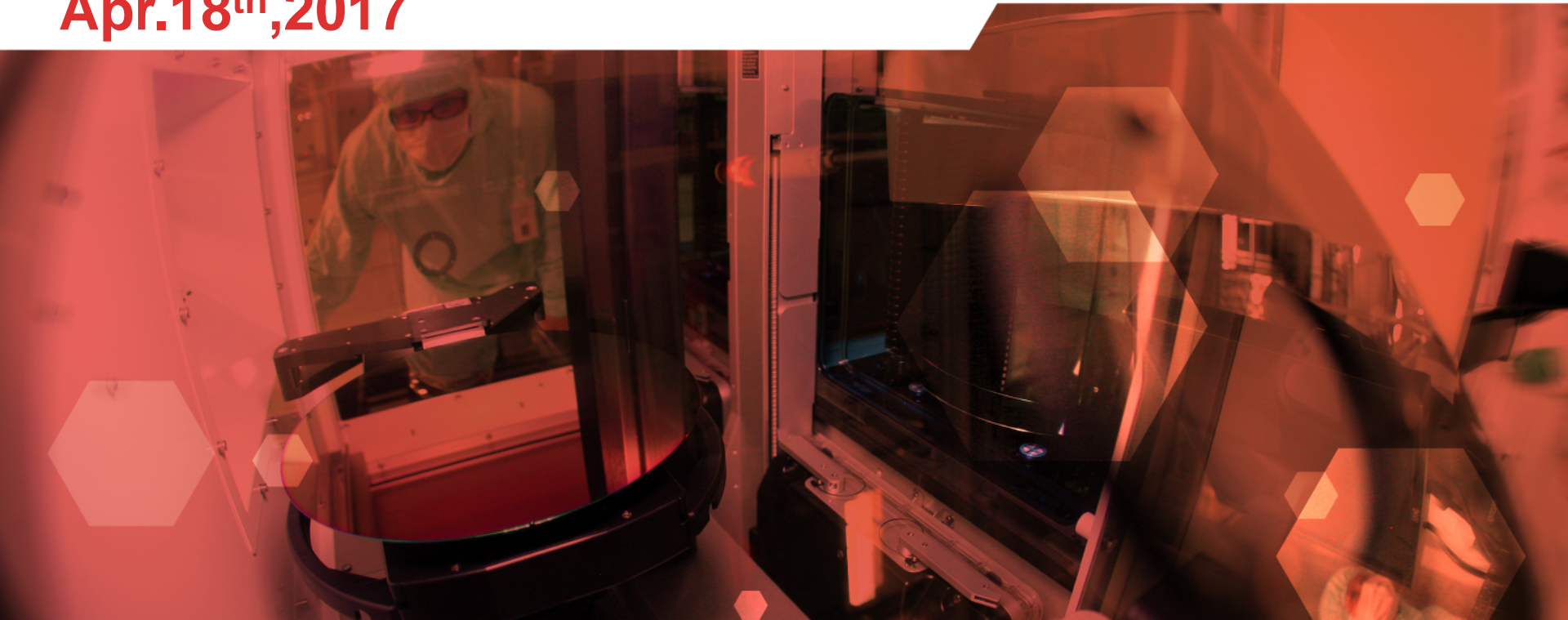


# SEMI China PV Std. Technical Committee Crystalline Silicon Solar Cell Task Force

**Song Dengyuan**

**Apr.18<sup>th</sup>,2017**



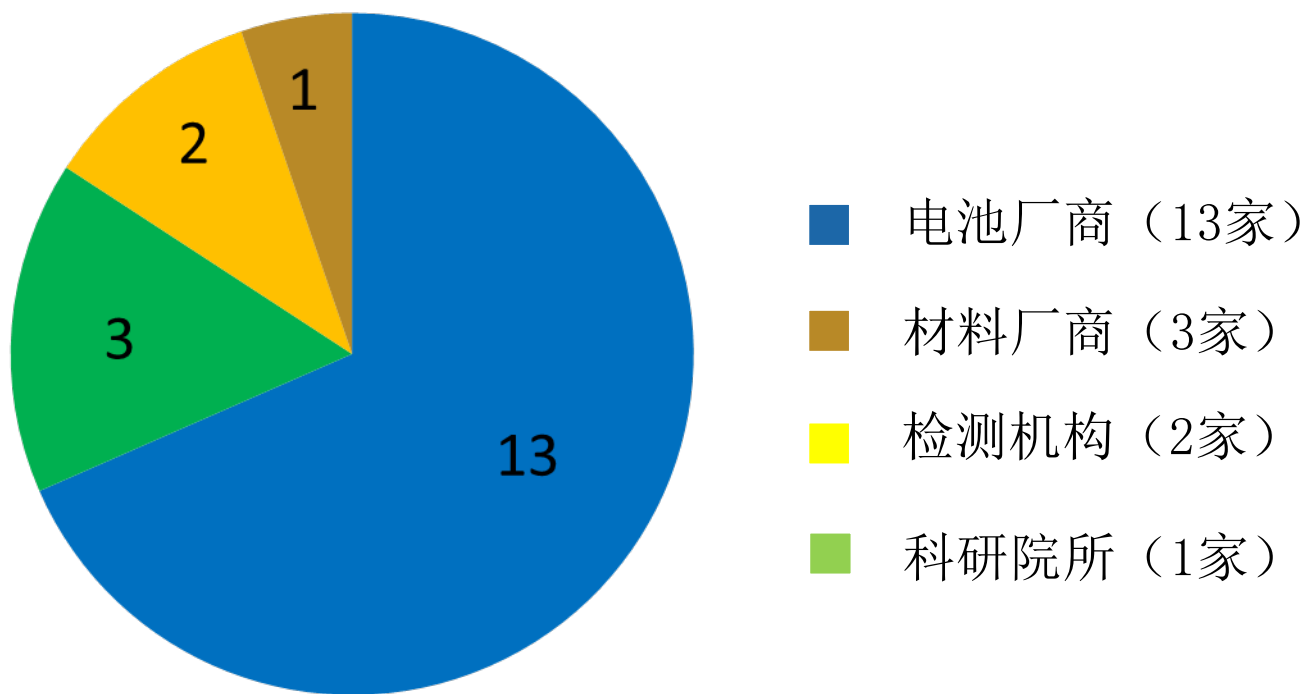
## Leaders of Crystalline Silicon Solar Cell Task Force

No.	Name	Company	Industry Chain
1	Song Dengyuan (宋登元)	Yingli (英利)	Silicon/ Wafer/ Cell/ Module/ System/
2	Chen Rulong (陈如龙)	Suntech (尚德)	Cell/ Module
3	Cai Xianwu (蔡先武)	CETC48 (48所)	Cell/ Module/ Equipment

Note: Industry Chain: Silicon/ Wafer/ Cell/ Module/ System/ Equipment/ Material/ Others

# Members of Crystalline Silicon Solar Cell Task Force(19家单位， 32位成员)

电池工作组成员2017年2月重组， 现有19家单位， 32位成员， 其中电池厂商13家， 材料厂商3家， 检测机构2家， 科研院所1家)



Note1: Industry Chain: Silicon/ Wafer/ Cell/ Module/ System/ Equipment/ Material/ Others

Note2: Different Industry Segment should be showed in different background colors

# Members of Crystalline Silicon Solar Cell Task Force(19家单位， 32位成员)

No.	Name	Company	Industry Chain
1	Li Feng	Yingli (英利)	Wafer/ Cell/ Module/ System
2	Li Yingye	Yingli (英利)	Wafer/ Cell/ Module/ System
3	Jiang Fangdan	Canadian (阿特斯)	Wafer/ Cell/ Module/ System
4	Guo Suqin	Canadian (阿特斯)	Wafer/ Cell/ Module/ System
5	Xiao Taoyun	TrinaSolar (天合)	Wafer/ Cell/ Module/ System
6	Wang Tandong	LERRI Solar (乐叶光伏)	Wafer/ Cell/ Module/ System
7	Wang Shihai	LERRI Solar (乐叶光伏)	Wafer/ Cell/ Module/ System
8	Ni Zhichun	Talesun (腾晖光伏)	Cell/ Module/ System
9	Wei Qingzhu	Talesun (腾晖光伏)	Cell/ Module/ System
10	Liu Linyan	LDK (江西赛维)	Silicon/ Wafer/ Cell
11	Li Jianmin	LDK LDK (江西赛维)	Silicon/ Wafer/ Cell
12	Li Ning	Jinko (晶科)	Wafer/ Cell/ Module/ System
13	Gao Feng	Jinko (晶科)	Wafer/ Cell/ Module/ System
14	Sheng Chunhua	JA Solar (晶澳)	Wafer/ Cell/ Module/ System
15	Wang Song	JA Solar (晶澳)	Wafer/ Cell/ Module/ System
16	Zheng Hailu	Lightway (光为)	Wafer/ Cell/ Module/ System

Note1: Industry Chain: Silicon/ Wafer/ Cell/ Module/ System/ Equipment/ Material/ Others

Note2: Different Industry Segment should be showed in different background colors

# Members of Crystalline Silicon Solar Cell Task Force(19家单位， 32位成员)

No.	Name	Company	Industry Chain
17	Wang Shipeng	Chint New Energy ( 浙江正泰 )	Cell/ Module/ System
18	Lu Yurong	Chint New Energy ( 浙江正泰 )	Cell/ Module/ System
19	Wang Yueqin	Lightway ( 光为 )	Wafer/ Cell/ Module/ System
20	Liu Wenfeng	Hunan Red Solar. ( 湖南红太阳 )	Wafer/ Cell/ Module/ System
21	Zhou Tao	Hunan Red Solar. ( 湖南红太阳 )	Wafer/ Cell/ Module/ System
22	Bo Xiangxi	TÜV SÜD ( 南德 )	Cell/ Module
23	Qing Weiguo	CPVT ( 国检光伏 )	Cell/ Module/ Material
24	Liu Jiangfeng	Xinyang Normal University ( 信阳师范 )	Cell/ Module/ System
25	Li Yanlei	Xinyang Normal University ( 信阳师范 )	Cell/ Module/ System
26	Liu Erming	SIBCO ( 希铂电子 )	Cell
27	Ding Bingbing	Rutech ( 儒兴科技 )	Material
28	Ouyang Jieyu	Rutech ( 儒兴科技 )	Material
29	Tang Hai	Samsung SDI ( 三星能源 )	Cell
30	Zuo Chendong	GuangDa ( 浙江光达 )	Material
31	Wu Min	Heraeus ( 贺利氏 )	Material
32	Zhou Xingqiang	Heraeus ( 贺利氏 )	Material

Note1: Industry Chain: Silicon/ Wafer/ Cell/ Module/ System/ Equipment/ Material/ Others

Note2: Different Industry Segment should be showed in different background colors

## Standards had been published(5项)

No.	Standard Number	Doc. Name	Proposed Company
1	SEMI PV54-0514	Specification for Silver Paste, Used to Contact with N+ Diffusion Layer of Crystalline Silicon Solar Cells 晶体硅电池N型层接触银浆技术规范	Suntech 尚德
2	SEMI PV58-0115	Specification for Aluminum Paste, Used in Back Surface Field of Crystalline Silicon Solar Cells 晶体硅光伏电池用背场铝浆技术规范	Suntech 尚德
3	SEMI PV65-0715	Test Method Based on RGB for C-Si Solar Cell Color 基于 RGB的晶体硅太阳能电池颜色测试方法	Yingli 英利
4	SEMI PV66-0715	Test Method for Determining the Aspect Ratio of Solar Cell Metal Finger by Confocal Laser Scanning Microscope 太阳能电池电极栅线高宽比测试：激光扫描共聚焦显微镜法	Yingli 英利
5	SEMI PV67-0815	Test Method for the Etch Rate of a Crystalline Silicon Wafer by Determining the Weight Loss 晶体硅片腐蚀速率测试方法：称重法	Yingli 英利

## Documents in Work(3项在研， 2项新提案)

No.	Standard Number	Doc. Name	Proposed Company
1	5842	New Standard: Test Method for Metal-Wrap-Through Solar Cell Via Resistance MWT太阳能电池灌穿孔质量的检测方法	CSI 阿特斯
2	6074	New Standard: Test Method for Peeling Force between Electrode and Ribbon 电极与焊带以及电极与背板之间剥离力的测试方法	Talesun 腾晖
3	6112	New Standard: Specification for Voltage Sweep Time and Direction in Transient Mode I-V Measurement of Silicon Solar Cells 太阳能电池效率测试的扫描时间和方向的参数选用标准	Jinko 晶科
4	SNARF	Guide for the applicability evaluation of pulsed solar simulator for the measurement of electrical properties of high efficiency crystalline silicon solar cells 脉冲太阳能模拟器对高效晶硅电池电性能测试的适用性评判指南	Talesun 腾晖
5	SNARF	New Standard: Specification of passivated emitter and rear side solar cell ( PERC ) PERC电池技术规范	Talesun 腾晖

# Documents in Work

## 1、SEMI Draft Document 5842（Canadian——阿特斯）

Doc. Name: Test Method for Metal-Wrap-Through Solar Cell Via Resistance（  
MWT电池片灌穿孔电阻检测方法）

### Content：

1） This standard defines the test method for metallized vias quality of metal wrap through solar cells.

本标准规定了MWT电池片灌穿孔电阻检测方法。

2） Report the results in Cycle 1 during 2017 in this meeting，continue to modify the draft.

本次会议汇报2017年第一轮投票结果，继续修改草案。



## Progress on the Documents(5842)

Content	When
Recruit Members	Feb,2015
Finished Draft Document	Jun, 2015
TF meeting	Nov,2015
TF meeting	Feb,2016
Submit to TC	Mar,2016
Global Ballot	Jun,2016
Submit to TC	Nov,2016
Global Ballot	Jan,2017

# Documents in Work

## 2、 SEMI Draft Document 6074 （~~Talesun~~——腾晖光伏）

Doc. Name: Test Method for Peeling Force between Electrode and Ribbon/Back Sheet （电极与焊带以及电极与背板之间剥离力的测试方法）

### Content:

1) This standard defines the test method of peeling force between 1) ribbon and front electrode 2) ribbon and back electrode and 3) back sheet and back surface layer.

本标准规定了焊带与正电极、焊带与背电极、背板与背电场之间的剥离力测试方法。

2) Submit it to TC for global ballot.

本次会议将提交委员会审核，申请进入全球投票。

## Progress on the Documents(6074)

Content	When
Recruit Members	Feb, 2015
Finished Draft Document	Dec, 2016
TF meeting	Mar, 2017

# Documents in Work

## 3、SEMI Draft Document 6112（Jinko——晶科）

Doc. Name: New Standard: Specification for Voltage Sweep Time and Direction in Transient Mode I-V Measurement of Silicon Solar Cells  
（太阳能电池效率测试的扫描时间和方向的参数选用标准）

### Content:

1) This standard applies to the IV performance measurements of p- and n-type crystalline based solar cells where the transient mode illumination is used.

本标准适用于光伏用单、多晶电池在瞬时光照模式下的效率测试。

2) The standard is writing draft.

本标准正在编写草案。

## Progress on the Documents(6112)

Content	When
Write Draft Document	Mar, 2017

## Documents in Work

### 4、SNARF (Talesun——腾晖光伏)

Guide for the applicability evaluation of pulsed solar simulator for the measurement of electrical properties of high efficiency crystalline silicon solar cells (脉冲太阳能模拟器对高效晶硅电池电性能测试的适用性评判指南)

Content:

Submit it to TC for approval.

本次会议提交委员会审核，申请立项。

## Documents in Work

### 5、SNARF (Talesun——腾晖光伏)

New Standard: Specification of passivated emitter and rear side solar cell (PERC) (PERC电池技术规范)

Content:

Submit it to TC for approval.

本次会议提交委员会审核，申请立项。

## TF Work Plan for the Next Step

Content	When
<b>5842</b> Doc. Name: Test Method for Metal-Wrap-Through Solar Cell Via Resistance ( MWT电池片灌穿孔电阻检测方法 ) Plan : Submit it to TC for global ballot in autumn Meeting 2017 计划 : 2017年秋季会议提交委员会审核 , 申请进入全球投票	Nov, 2017
<b>6074</b> Doc. Name : Test Method for Peeling Force between Electrode and Ribbon/Back Sheet ( 电极与焊带以及电极与背板之间剥离力的测试方法 ) Plan : Submit it to TC for audit and review in autumn Meeting 2017 计划 : 2017年秋季会议提交委员会审核进入A&R程序	Nov, 2017
<b>6112</b> Doc. Name: New Standard: Specification for Voltage Sweep Time and Direction in Transient Mode I-V Measurement of Silicon Solar Cells ( 太阳能电池效率测试的扫描时间和方向的参数选用标准 ) Plan : Submit it to TC for global ballot in autumn Meeting 2017 计划 : 2017年秋季会议提交委员会审核 , 申请进入全球投票	Nov, 2017



## TF Work Plan for the Next Step

Content	When
SNARF : New Standard: Guide for the applicability evaluation of pulsed solar simulator for the measurement of electrical properties of high efficiency crystalline silicon solar cells ( 脉冲太阳能模拟器对高效晶硅电池电性能测试的适用性评判指南 ) : Plan : Complete the draft 计划 : 完成标准草案	Nov, 2017
SNARF : New Standard: Specification of passivated emitter and rear side solar cell ( PERC ) ( PERC电池技术规范 ) Plan : Complete the draft 计划 : 完成标准草案	Nov, 2017

# THANK YOU