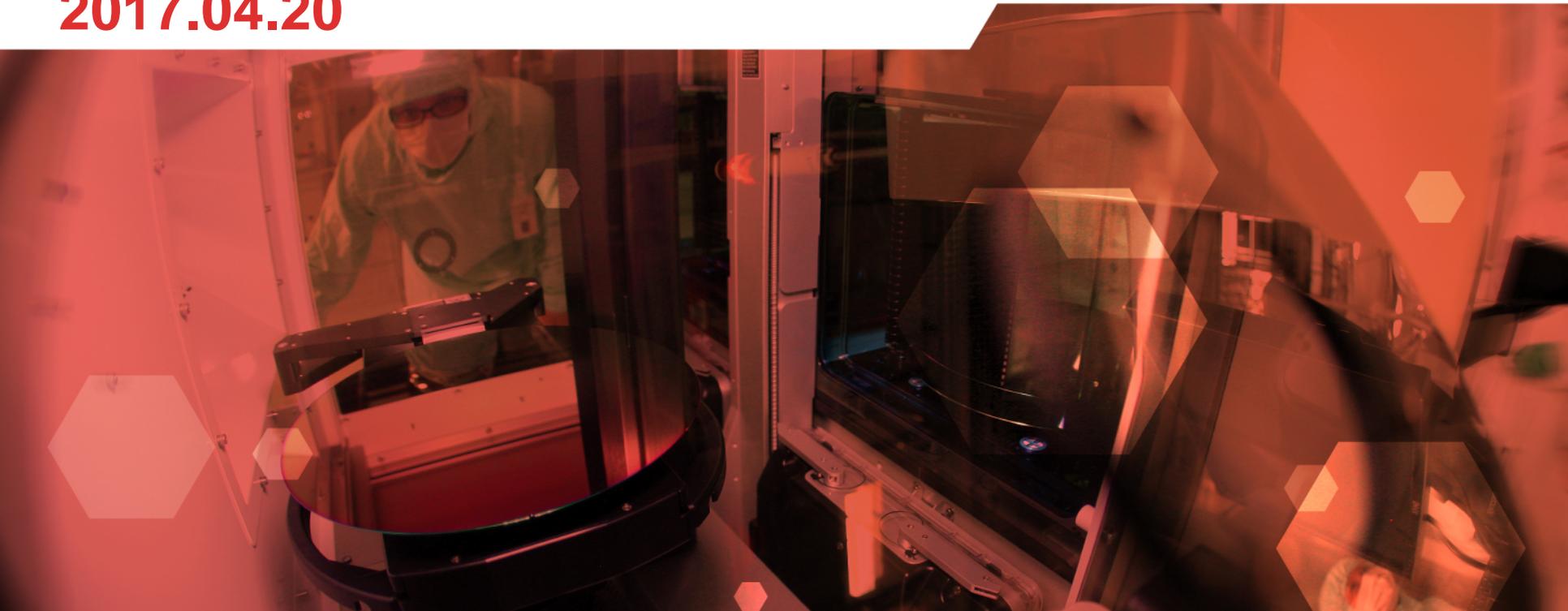


SEMI China HB-LED Std. Technical Committee Single Crystal Sapphire Task Force

贵州皓天光电科技有限公司 (GHTOT)

2017.04.20



Leaders of Single Crystal Sapphire Task Force

No.	Name	Company	Industry Chain
1	Ji Yong	GHTOT	Sapphire Manufacturing
2	Yang Xinhong	AURORA	Sapphire Manufacturing

Note: Industry Chain: Sapphire Manufacturing/ Epitaxial & Chip/ Package & Module/ Applications/ Processing Equipment/ Processing Materials/ Others

Members of Single Crystal Sapphire Task Force

No.	Name	Company	Industry Chain	No.	Name	Company	Industry Chain
1	Qi Liuyun	GHTOT	Sapphire Manufacturing	10	Liu Yingbin	AMEC	Epitaxial & Chip
2	Carl Zhang	GHTOT	Sapphire Manufacturing	11	Cai Weizhi	Sanan	Epitaxial & Chip
3	Ding Guangbo	AURORA	Sapphire Manufacturing	12	Liu Yifeng	GCL	Others
4	Zhang Xuejun	AURORA	Sapphire Manufacturing	13	Wu Longqiang	Crystaland	Sapphire Manufacturing
5	Zheng Songsen	NJC	Sapphire Manufacturing	14	Wan Zhan	MONO	Sapphire Manufacturing
6	Dong Fa	THTF	Sapphire Manufacturing	15	Zhao Songbing	DDXDF	Inspection Equipment
7	Zhang Huixuan	ECEC	Sapphire Manufacturing	16	Sui Honglin	CETC48	Others
8	John Ciraldo	Rubicon	Sapphire Manufacturing	17	Lv Wenli	CETC48	Others
9	GAN Yang	HIT	Others				

Note1: Industry Chain: Sapphire Manufacturing/ Epitaxial & Chip/ Package & Module/ Applications/ Processing Equipment/ Processing Materials/ Others

Note2: New members joined in TF showed in different background colors

Documents in Work

SEMI Draft Document 5723A

Doc. Name: Specification for Single Crystal Sapphire Intended for Use for Manufacturing HB- LED Wafers
/高亮度LED衬底用单晶蓝宝石材料

Content: This document includes the physical and chemical properties of single crystal sapphire, and the defects of sapphire. The physical and chemical properties include hardness, light transmission, full width at half maximum and purity. The defects include EPD, bubbles, cloud, grain boundary, inclusion, color, and micro crack.

Documents in Work

SEMI Draft Document 5946

Doc. Name: Test Method for Grain Boundary of Single Crystal Sapphire by Optical Homogeneity Technique (OHT)

/OHT法检测蓝宝石晶界的测试方法

Content: This document describe that inspection procedure for observing grain boundaries in single crystal sapphire. And define the terms used in the measurement procedure and for describing grain boundary defects.

Progress on the Documents

5723A :Specification for Single Crystal Sapphire Intended for Use for Manufacturing HB- LED Wafers

/高亮度LED衬底用单晶蓝宝石材料

Doc5723 have been balloted on cycle-5 2016, voting interest accepts 96.55%, only one rejected ballots. Received many comments from same voter after discussion and communication, we request to ultimate judgment from SEMI Global Coordinating Subcommittee (GCS). The GCS comment failed because we accepted and revised document partially according Peter' s suggestion .

#5723参加2016年的第5轮投票，投票通过率达96.55%，仅收到1个反对票。因个别专家的意见较多，经讨论决定，申请SEMI全球协调委员会评审。GCS 评审意见为TF部分接收Peter的意见并做了少量修改，因此需重新参加新的全球投票。

Progress on the Documents

5723A :Specification for Single Crystal Sapphire Intended for Use for Manufacturing HB- LED Wafers

/高亮度LED衬底用单晶蓝宝石材料

ISC Audits & Reviews SC Summary (December 2016)

Doc.	Title	Results
4683J;	Line Item Revision to SEMI S2-0715, Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment. Delayed Revisions Related to Chemical Exposure	
4683J-LI1;	Revisions to SEMI S2 related to chemical exposure;	Passed
5598A;	New Standard: Test Method for Durability of Low Light Intensity Organic Photovoltaic (OPV) and Dye-Sensitized Solar Cell (DSSC);	Passed
5656B;	Revision to SEMI C65-0308, Guide for Trimethylsilane (3MS), 99.995% Quality;	Passed
5657B;	Revision to SEMI C66-0308, Guide for Trimethylaluminum (TMAI), 99.5% Quality;	Passed
5723A;	New Standard: Specification for Single Crystal Sapphire Intended for Use for Manufacturing HB- LED Wafers;	Failed
	New Standard: Specification for Sapphire Single Crystal Ingot Intended	Failed

Reason for failing 5723A

Editorial changes V-2 and V-3 are not qualified as editorial change.

They are changing recommendations (should) to requirements (shall), and by doing so, change the technical content of the specification.

Progress on the Documents

5723B :Specification for Single Crystal Sapphire Intended for Use for Manufacturing HB- LED Wafers

/高亮度LED衬底用单晶蓝宝石材料

Synthesizes all the suggestions from last two ballots, Mr. Peter Wagner and HB-LED NA Committee, TF revised the document 5723B, and request to ballot in May 2017.

综合两轮投票收集意见，与Wagner先生的多次沟通，和SEMI北美委员会的意见，对标准文本进行修改升级为5723B，将申请参加2017年5月份的全球投票。

TF Work Plan for the Next Step

Content	When
#5723B : ballot in 2017	May 2017
#5946 : submit document	Next committee meeting