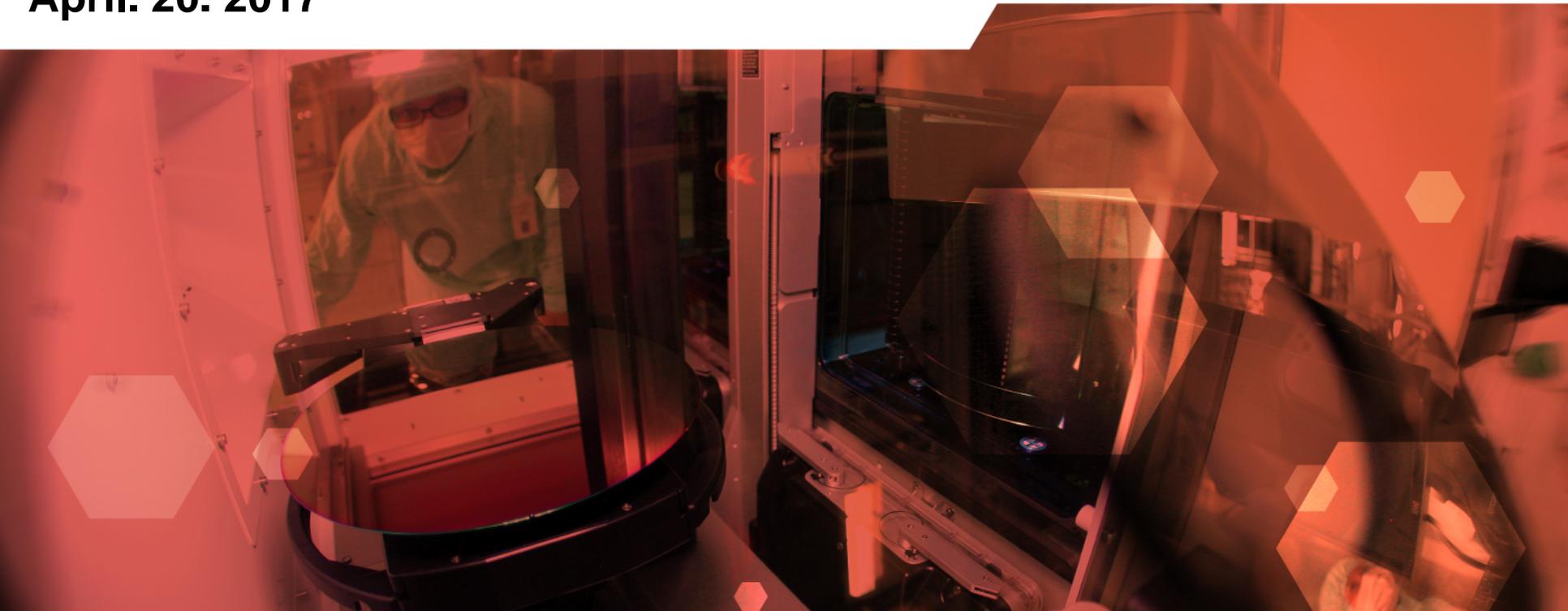


Task Force Report

—From GaN-based LED Epitaxial wafer TF

Jiangbo Wang

April. 20. 2017



Leader of GaN based LED Epitaxial wafer Task Force

No.	Name	Company	Industry Chain
1	Jiangbo Wang	HC SemiTek Corporation	Epitaxial & Chip

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

Members of GaN based LED Epitaxial wafer Task Force

No.	Name	Company	Industry Chain
1	Zhihao Wu	HC SemiTek Corporation	Epitaxial & Chip
4	Liangwen Wu	Elec-Tech International	Epitaxial & Chip
2	Chunhui Yan	Invenlux	Epitaxial & Chip
3	Jianzhe Liu	ECEC	Sapphire Manufacturing
6	Yifeng Liu	GCL	Sapphire Manufacturing
5	Songsen Zheng	NJC	Sapphire Manufacturing
6	Yingbin Liu	AMEC	Equipment

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

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

Documents in Work

SEMI Draft Document 5776

Doc. Name: Test Method for Detecting Surface Defects of GaN based LED Epitaxial Wafer Used for Manufacturing HB-LED
/用于高亮度LED制造的GaN基LED外延片表面缺陷检验标准

Progress on the Documents

SEMI Draft Document 5776

Doc. Name: Test Method for Detecting Surface Defects of GaN based LED Epitaxial Wafer Used for Manufacturing HB-LED

Doc5776 have been balloted on cycle-8 2016, voting interest accepts 89.19%, rejected 4 ballots. Received many comments from individual expert, after discussion and communication, we recall the document and revised by task force. TF will revise the document and will request to ballot on next cycle in next China HB-LED standard committee.

#5776参加2016年的第8轮投票，投票通过率达89.19%，共收到4个反对票。因个别专家的意见较多，经沟通决定，返回标准文本回工作组修改。标准文本经修改后，拟在下次中国HB-LED秋季标准委员会上申请重新参加全球投票。

Progress on the Documents

SEMI Draft Document 5776

Doc. Name: Test Method for Detecting Surface Defects of GaN based LED Epitaxial Wafer Used for Manufacturing HB-LED

00 5776 - Std-HB-LED

5776 - Std-HB-LED New Standard: Test Method for Detecting Surface Defects of GaN based LED Epitaxial Wafer Used for Manufacturing HB-LED..

Reject.. AFF_LGE.. 298934 - Jun, Sungjo..

This item is suitable not for Standard but for Guidance. In the point of specifications in Table 1, each manufacturer has their own specification for these items. Moreover, there should be a guideline how to measure size of each defect in a visual inspection procedure..

Reject.. AFF_Philips.. 287602 - Kim, Andrew..

A nice start, thank you for the work, this is important!..

Overall, there is an insufficient level of detail to make this an actionable spec. Insufficient detail to accurately classify defects and their detection thresholds. Need more clarity in the inspection procedures and inspection equipment, especially latter since lighting and imaging conditions dramatically affect visibility of fine surface defects..

Reject.. AFF_PWC.. 48158 - Wagner, Peter..

The document needs to explain and define what is meant by 'GaN based LED Epitaxial Wafer'. Is it any substrate wafer with an epitaxial GaN layer or is it a GaN Wafer?..

Reject.. AFF_UAA.. 110968 - Hartsough, Larry..

*..
(Cycle 8 2016 LDH Doc 5776 Negative.doc)..*

AcceptComments.. AFF_Sonoscan.. 68230 - Martell, Steve..

Please check title to correct from 'GAN' to GaN' in version sent for ballot review..

Total Voting Interests/Votes: 63/80.. **Voting Interest Accepts: 33 (89.19%)..** **Voting Interest Rejects: 4..**

Voting Interest Returns: 42.. **Return Percentage: 60.00%..** **Voting Interest Distribution: 70..**

Progress on the Documents

SEMI Draft Document 5776

Doc. Name: Test Method for Detecting Surface Defects of GaN based LED Epitaxial Wafer Used for Manufacturing HB-LED

Task Schedule		时间
一	标准制定	Sep. 2014-Sep. 2016
	1 标准立项	Sep. 2014
	2 数据收集	Oct. 2014-Apr. 2016
	3 数据分析/验证/论证	
	4 标准草案起草	May. 2016-Jul. 2016
	5 小组草案讨论	Aug. 2016
	6 草案修订	Sep. 2016
二	提交标准初稿	Oct. 2016
	1 提交标准初稿-SEMI	Oct. 2016
	2 国内行业讨论	Oct. 2016
	3 标准修订	Oct. 2016
三	国际标准讨论/投票	
	1 国际标准讨论/投票	Nov. 2016-Feb. 2017
	2 标准修订	Mar. 2017

TF Work Plan for the Next Step

Content	When
#5776: First cycle of ballot	Nov.2016-Feb.2017
#5776: revise document	Mar-Sep.2017
#5776: request to next cycle of ballot	Apri.2017

THANK YOU