

## 測試報告

## Test Report

號碼(No.) : CE/2019/A3667

日期(Date) : 2019/10/28

頁數(Page): 1 of 6

穩懋半導體股份有限公司

WIN SEMICONDUCTORS CORP.


桃園市龜山區華亞科技園區科技七路35號

NO. 35, KEJI 7TH RD., HWAYA TECHNOLOGY PARK, GUISHAN DISTRICT, TAOYUAN CITY 33383, TAIWAN

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as):

送樣廠商(Sample Submitted By) : 穩懋半導體股份有限公司 (WIN SEMICONDUCTORS CORP.)  
樣品名稱(Sample Description) : HBT WAFER  
收件日期(Sample Receiving Date) : 2019/10/21  
測試期間(Testing Period) : 2019/10/21 to 2019/10/28

=====  
測試結果(Test Results) : 請參閱下一頁 (Please refer to following pages).

  
Troy Chang / Manager - Tech  
Signed for and behalf of  
SGS TAIWAN LTD.  
Chemical Laboratory - Taipei



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <https://www.sgs.com/en/terms-and-conditions/terms-e-document>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

# 測試報告

號碼(No.) : CE/2019/A3667

日期(Date) : 2019/10/28

頁數(Page): 2 of 6

# Test Report

穩懋半導體股份有限公司  
WIN SEMICONDUCTORS CORP.

桃園市龜山區華亞科技園區科技七路35號

NO. 35, KEJI 7TH RD., HWAYA TECHNOLOGY PARK, GUISHAN DISTRICT, TAOYUAN CITY 33383, TAIWAN

## 測試結果(Test Results)

測試部位(PART NAME)No. 1 : 晶圓 (WAFER)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	MDL	結果 (Result)
				No. 1
全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS-Acid, Metal Salt, Amide)	mg/kg	參考CEN/TS 15968 (2010), 以液相層析/質譜儀檢測. / With reference to CEN/TS 15968 (2010). Analysis was performed by LC/MS.	0.01	n. d.
全氟辛酸 / PFOA (CAS No. : 335-67-1)	mg/kg	參考CEN/TS 15968 (2010), 以液相層析/質譜儀檢測. / With reference to CEN/TS 15968 (2010). Analysis was performed by LC/MS.	0.01	n. d.
銻 / Antimony (Sb)	mg/kg	參考US EPA 3050B (1996), 以感應耦合電漿發射光譜儀檢測. / With reference to US EPA 3050B (1996). Analysis was performed by ICP-OES.	2	n. d.
鈹 / Beryllium (Be)	mg/kg	參考US EPA 3050B (1996), 以感應耦合電漿發射光譜儀檢測. / With reference to US EPA 3050B (1996). Analysis was performed by ICP-OES.	2	n. d.

## 備註(Note) :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. MDL = Method Detection Limit (方法偵測極限值)
3. n. d. = Not Detected (未檢出)

## 測試報告

## Test Report

號碼(No.) : CE/2019/A3667

日期(Date) : 2019/10/28

頁數(Page): 3 of 6

穩懋半導體股份有限公司

WIN SEMICONDUCTORS CORP.

桃園市龜山區華亞科技園區科技七路35號

NO. 35, KEJI 7TH RD., HWAYA TECHNOLOGY PARK, GUIZHAN DISTRICT, TAOYUAN CITY 33383, TAIWAN

### PFOS參考資訊(Reference Information) : 持久性有機污染物 POPs - (EU) 2019/1021

PFOS濃度在物質或製備中不得超過0.001%(10ppm)，在半成品、成品或零部件中不得超過0.1%(1000ppm)，在紡織品或塗層材料中不得超過 $1\mu\text{g}/\text{m}^2$ 。

(Outlawing PFOS as substances or preparations in concentrations above 0.001% (10ppm), in semi-finished products or articles or parts at a level above 0.1%(1000ppm), in textiles or other coated materials above  $1\mu\text{g}/\text{m}^2$ .)

# 測試報告

# Test Report

號碼(No.) : CE/2019/A3667

日期(Date) : 2019/10/28

頁數(Page): 4 of 6

穩懋半導體股份有限公司

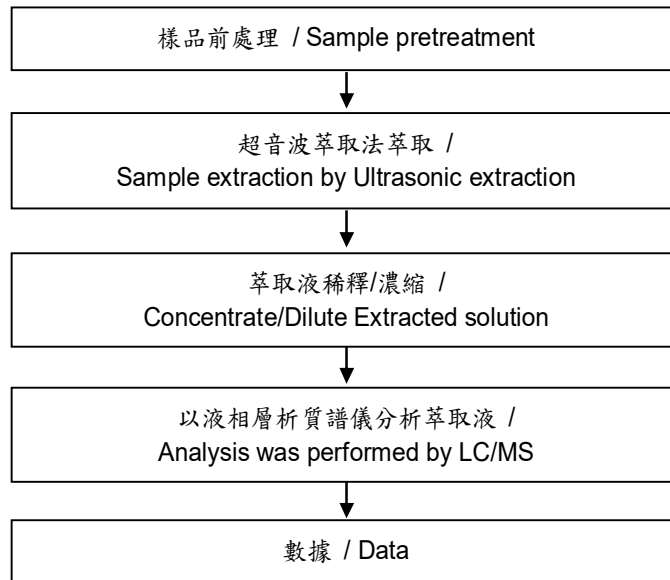
WIN SEMICONDUCTORS CORP.

桃園市龜山區華亞科技園區科技七路35號

NO. 35, KEJI 7TH RD., HWAYA TECHNOLOGY PARK, GUIZHAN DISTRICT, TAOYUAN CITY 33383, TAIWAN

### 全氟辛酸/全氟辛烷磺酸分析流程圖 / Analytical flow chart - PFOA/PFOS

- 測試人員：涂雅苓 / Technician: Yaling Tu
- 測試負責人：張啟興 / Supervisor: Troy Chang



# 測試報告

號碼(No.) : CE/2019/A3667

日期(Date) : 2019/10/28

頁數(Page): 5 of 6

# Test Report

穩懋半導體股份有限公司

WIN SEMICONDUCTORS CORP.

桃園市龜山區華亞科技園區科技七路35號

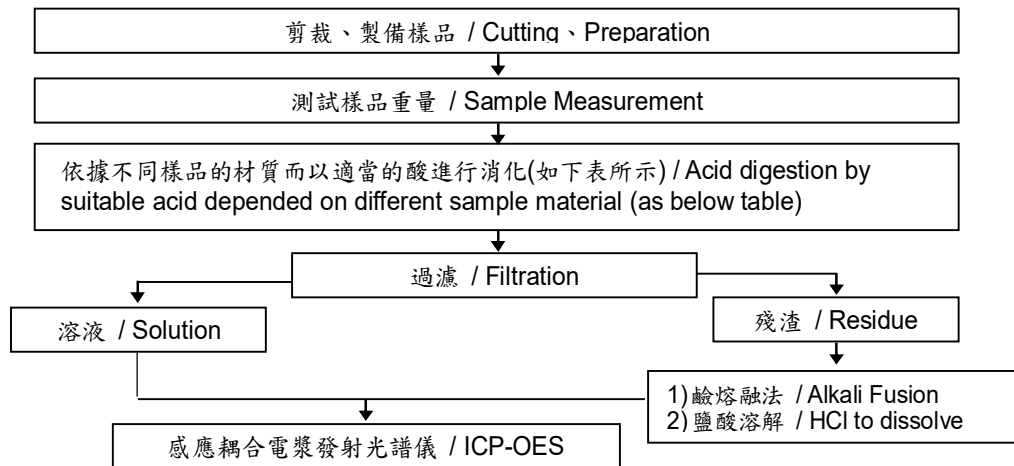
NO. 35, KEJI 7TH RD., HWAYA TECHNOLOGY PARK, GUIZHAN DISTRICT, TAOYUAN CITY 33383, TAIWAN

根據以下的流程圖之條件，樣品已完全溶解。 / These samples were dissolved totally by pre-conditioning method according to below flow chart.

- 測試人員：陳思臻 / Technician: Rita Chen
- 測試負責人：張啟興 / Supervisor: Troy Chang

### 元素以 ICP-OES 分析的消化流程圖

#### (Flow Chart of digestion for the elements analysis performed by ICP-OES)



鋼,銅,鋁,焊錫 / Steel, copper, aluminum, solder	王水,硝酸,鹽酸,氫氟酸,雙氧水 / Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
玻璃 / Glass	硝酸,氫氟酸 / HNO <sub>3</sub> /HF
金,鉑,鈀,陶瓷 / Gold, platinum, palladium, ceramic	王水 / Aqua regia
銀 / Silver	硝酸 / HNO <sub>3</sub>
塑膠 / Plastic	硫酸,雙氧水,硝酸,鹽酸 / H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
其他 / Others	加入適當的試劑至完全溶解 / Added appropriate reagent to total digestion

## 測試報告

## Test Report

號碼(No.) : CE/2019/A3667

日期(Date) : 2019/10/28

頁數(Page): 6 of 6

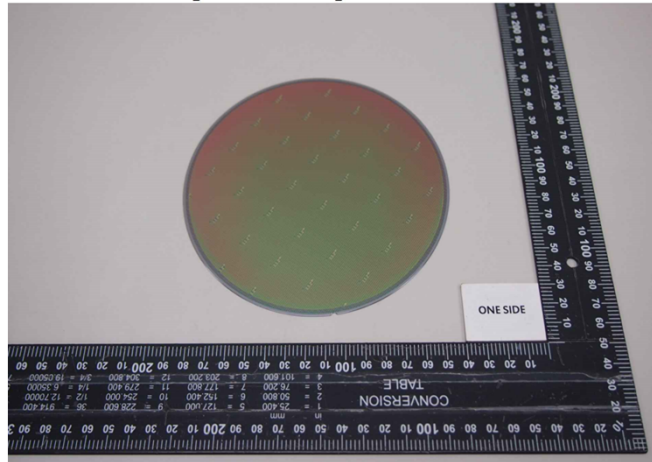
穩懋半導體股份有限公司  
WIN SEMICONDUCTORS CORP.

桃園市龜山區華亞科技園區科技七路35號

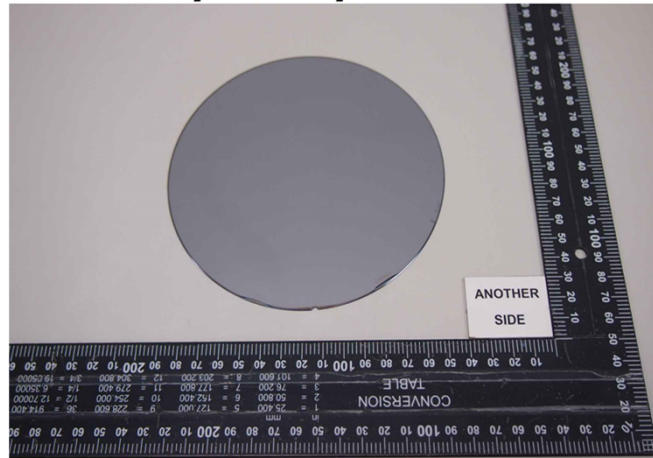
NO. 35, KEJI 7TH RD., HWAYA TECHNOLOGY PARK, GUISHAN DISTRICT, TAOYUAN CITY 33383, TAIWAN

\* 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。\*  
(The tested sample / part is marked by an arrow if it's shown on the photo.)

### CE/2019/A3667



### CE/2019/A3667



\*\* 報告結尾 (End of Report) \*\*

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <https://www.sgs.com/en/terms-and-conditions/terms-e-document>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of client's instruction, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced, except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.