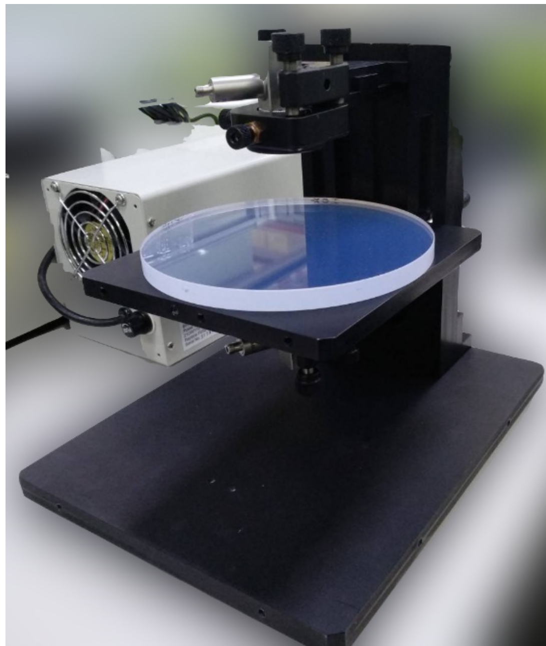
# 統新自行研發薄膜量測儀
# Apogee Measuring System (AMS)



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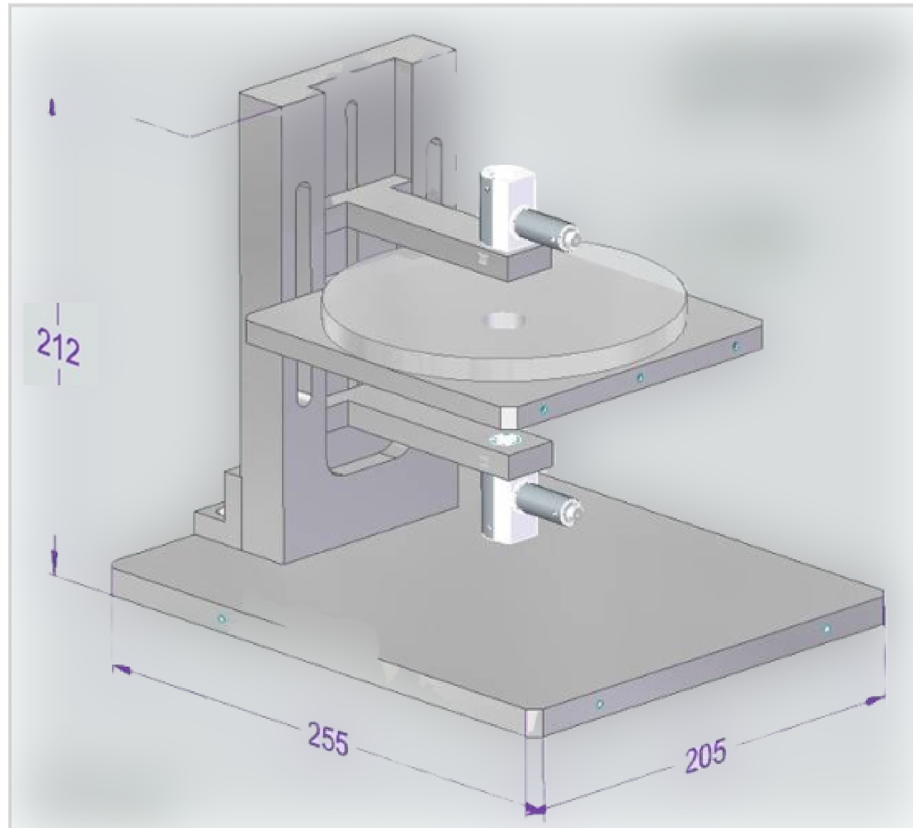
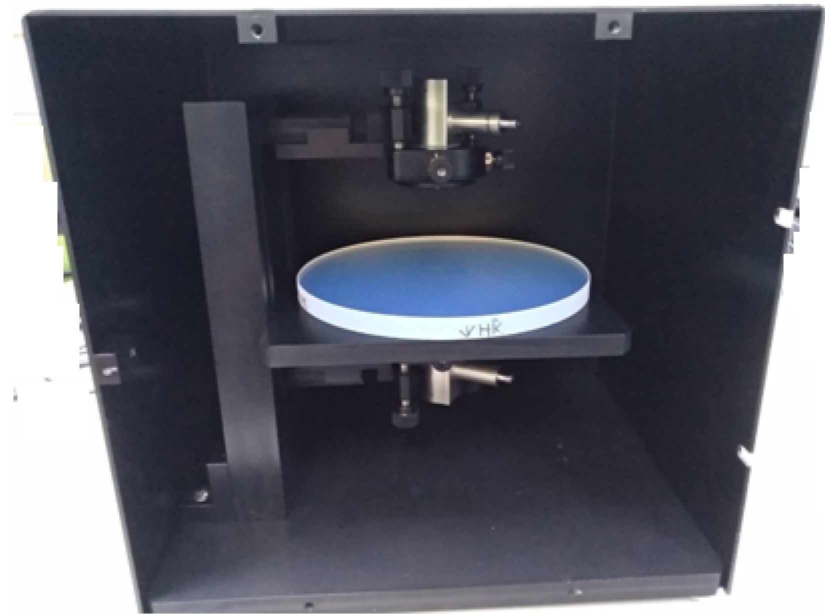
# ACMS簡介

- 膜厚量測(10 nm-25 um)
- 折射率N、吸收係數K量測
- 廣波域量測(450-1000 nm,1000-1600 nm)
- 反射率或穿透率光譜量測
- 光譜解析度~1 nm
- 光譜重複性<0.03%
- 多層膜厚度D量測(厚度誤差<2nm，精准度<0.1 nm)
- 折射率誤差<0.1
- 有機高分子材料、金屬氧化物、氮化物、半導體材料、介電質材料等
- 基板尺寸平臺皆可客制(標準品: 4”)

# ACMS架構



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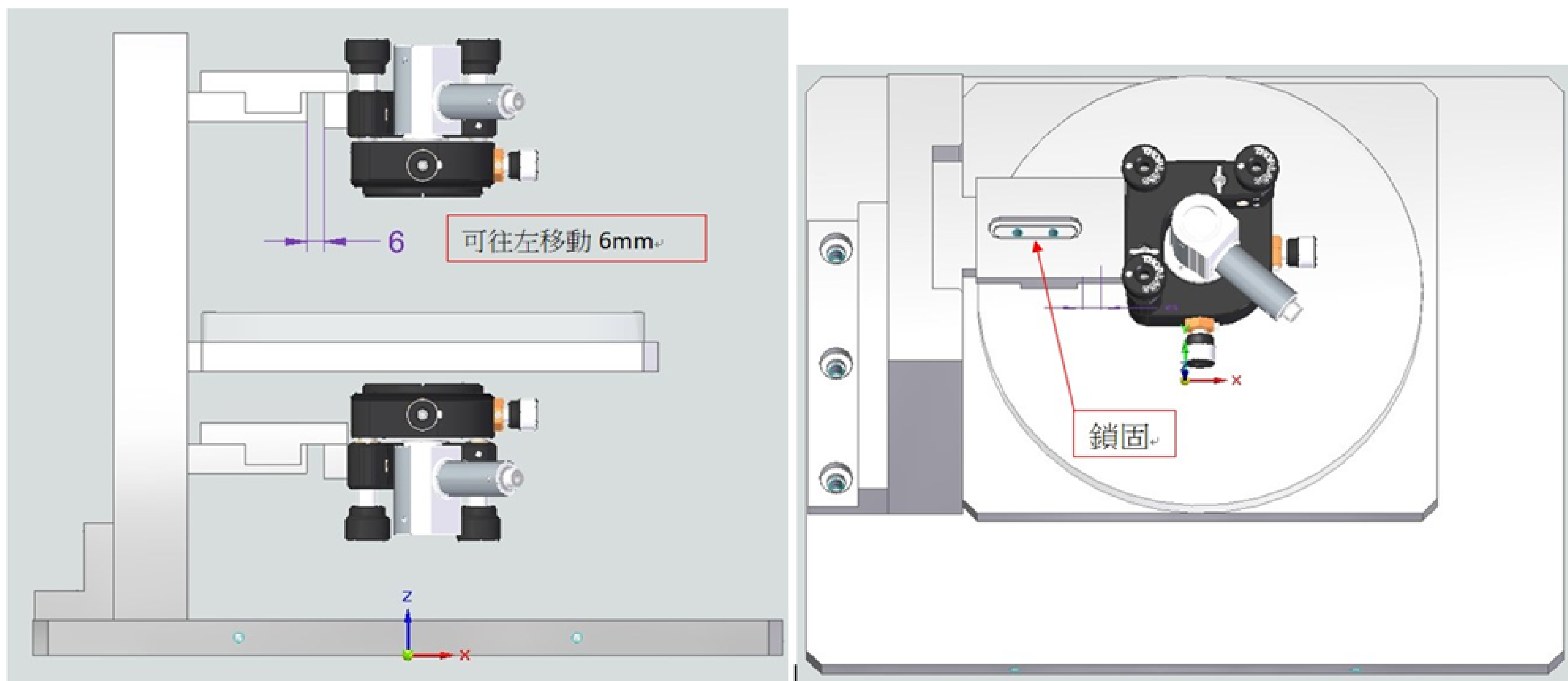
# ACMS微調整座

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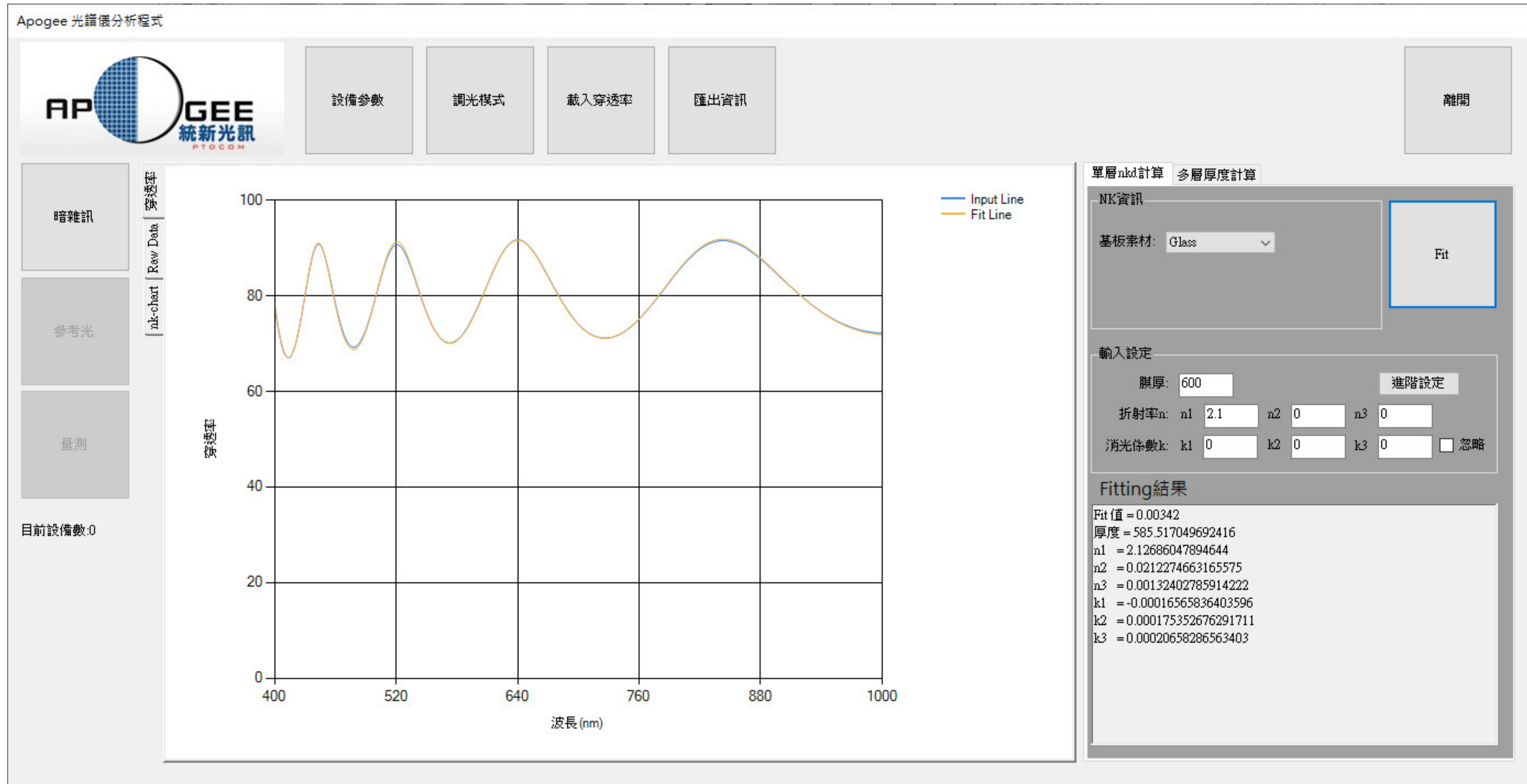
# ACMS操作介面



# ACMS操作介面

FormSetting

Prepare Measurement Data

| | Serial Number | Detector Type | Total Pixels | Start Pixel | Stop Pixel | Integration Time [ms] | Integration Delay [ns] | Averaging |
|---|---|---|---|---|---|---|---|---|
| ▸ | 2002069U1 | HAMG9208_512 | 512 | 65 | 310 | 2.00 | 0 | 30 |

參數設定

設備序號: 2002069U1

Integration Time[ms]: 2.00

Integration Delay[ms]: 0.00

Start Pixel: 65 對應波長: 1400.759

Stop Pixel: 310 對應波長: 1600.385

Average Num: 30

Smoothing: 0

讀取 EEPROM | 寫入 EEPROM | 設定

ExportForm

路徑: C:\Users\31320\Desktop ....

檔名: ExportData_20210317_111437

匯出項目

☑ 波長 ☑ 穿透率(%) ☐ 參考光 ☐ 暗雜訊 ☐ 量測值

☑ 分析報告: nkd資料分析

存檔 | 離開

☐ 將資料整理成每1nm(波長)一筆

確定

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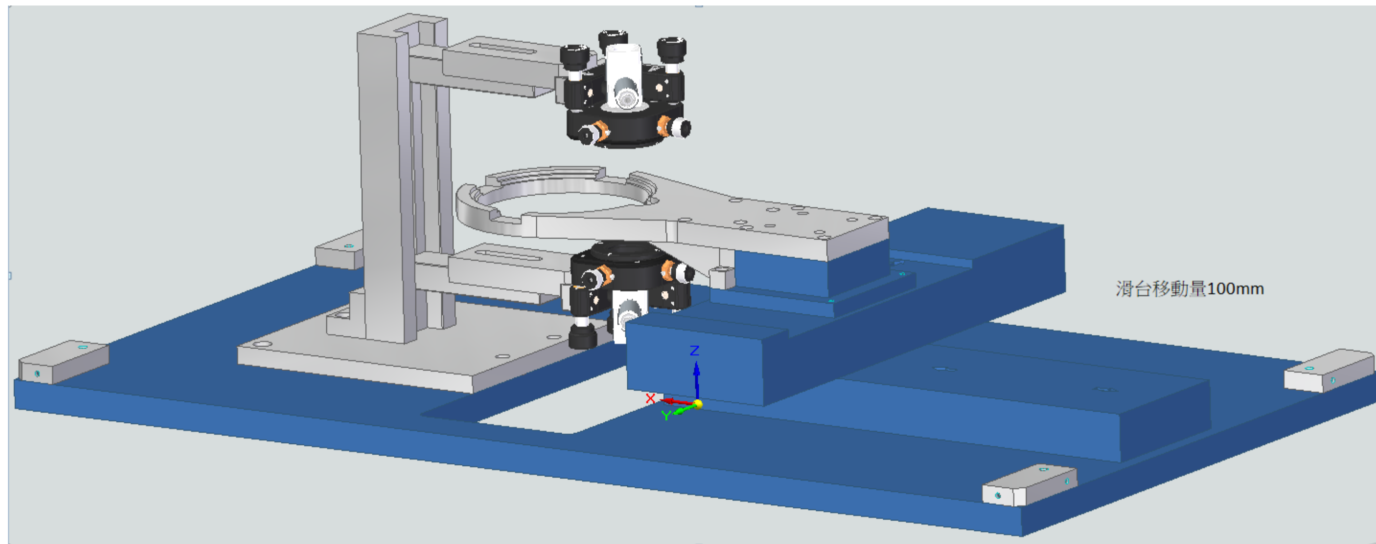
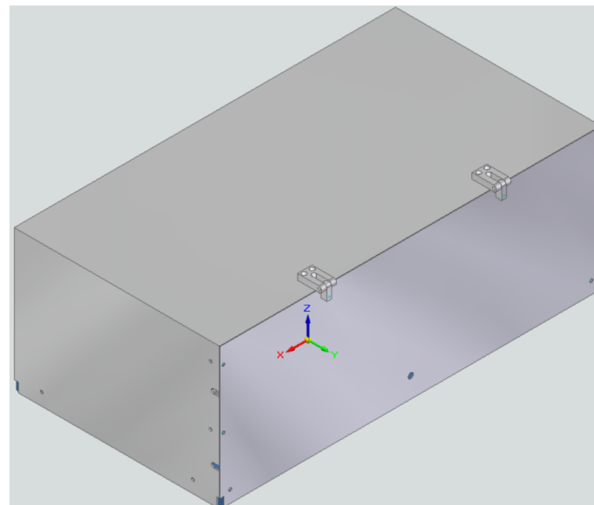
# 自動量測點位加裝

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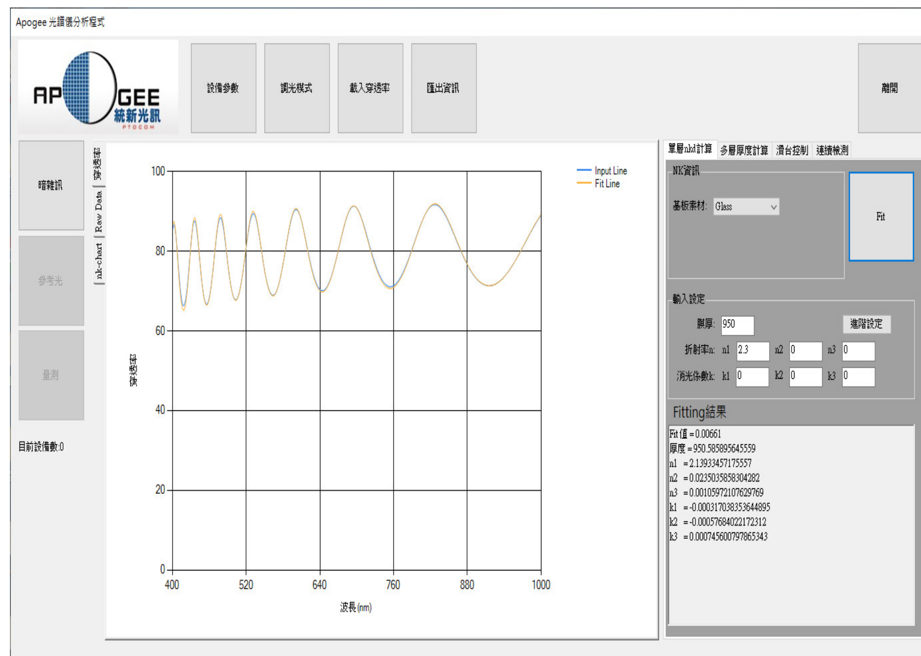
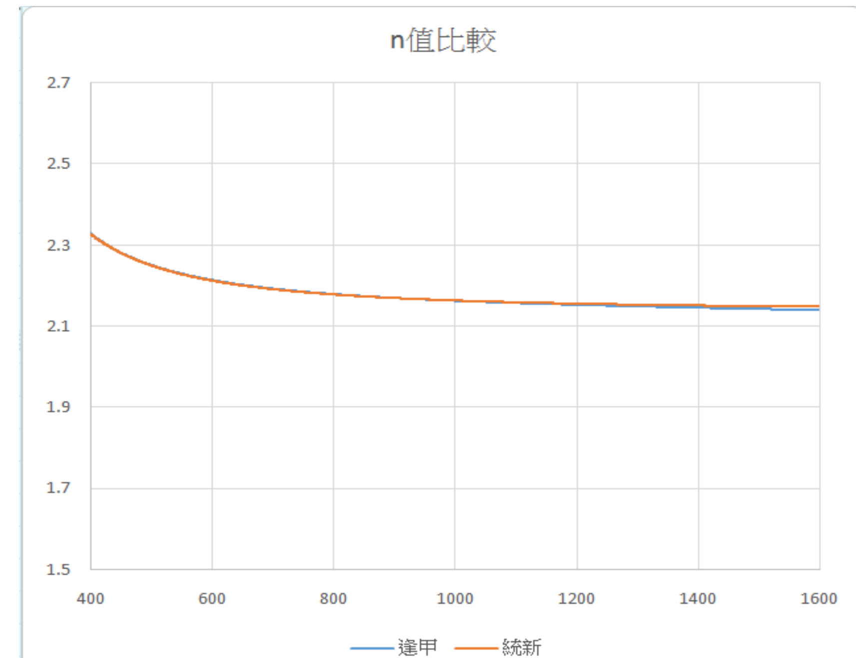
# 量測試驗




Ta2O5單層膜光譜量測和Angilent Cary7000一致

跟J. A Woollam m-2000 橢偏儀相較計算折射率差異<0.1

厚度差異< 2nm

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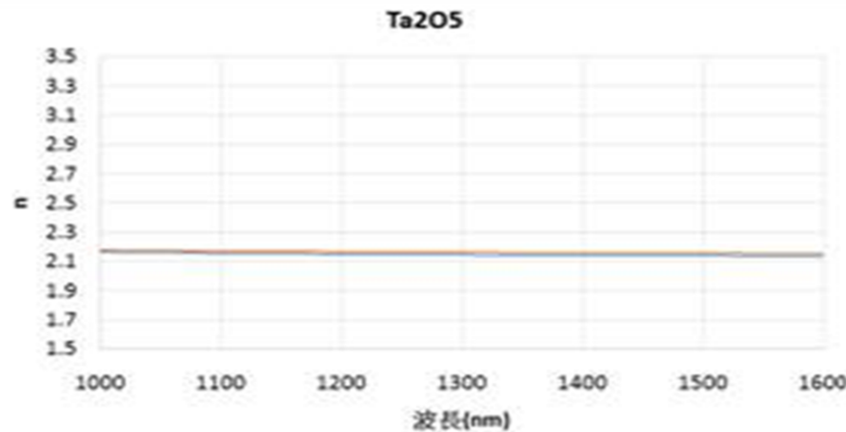
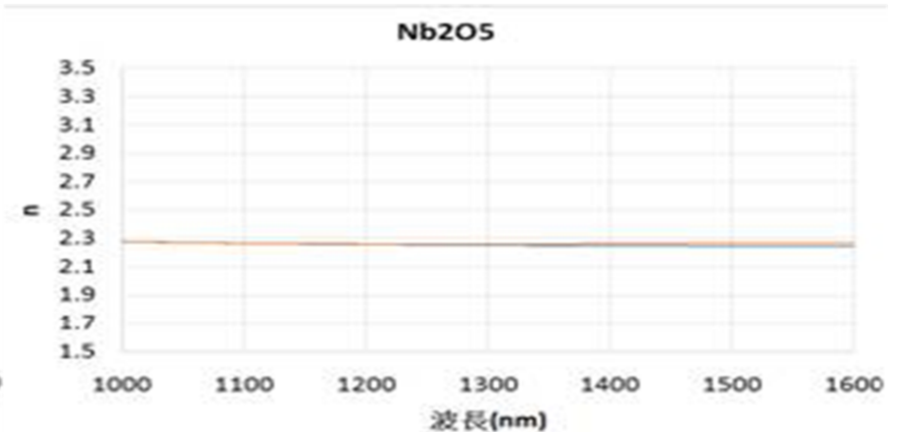
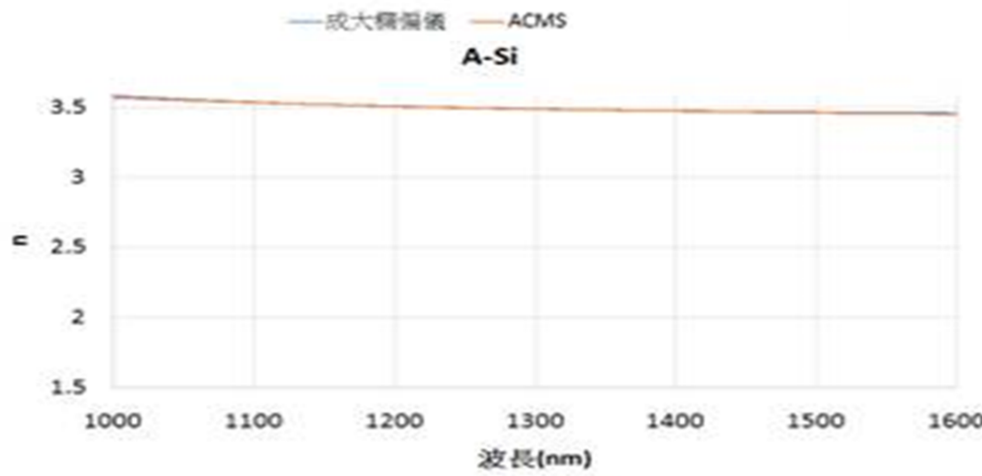
# 量測試驗 II




跟J. A Woollam m-2000 橢偏儀相較計算折射率差異<0.1
厚度差異< 2nm

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