

SUPPLEMENTARY INFORMATION

Exploiting the signatures of nanoplasmon-exciton coupling on proton sensitive insulator-semiconductor devices for drug discovery applications

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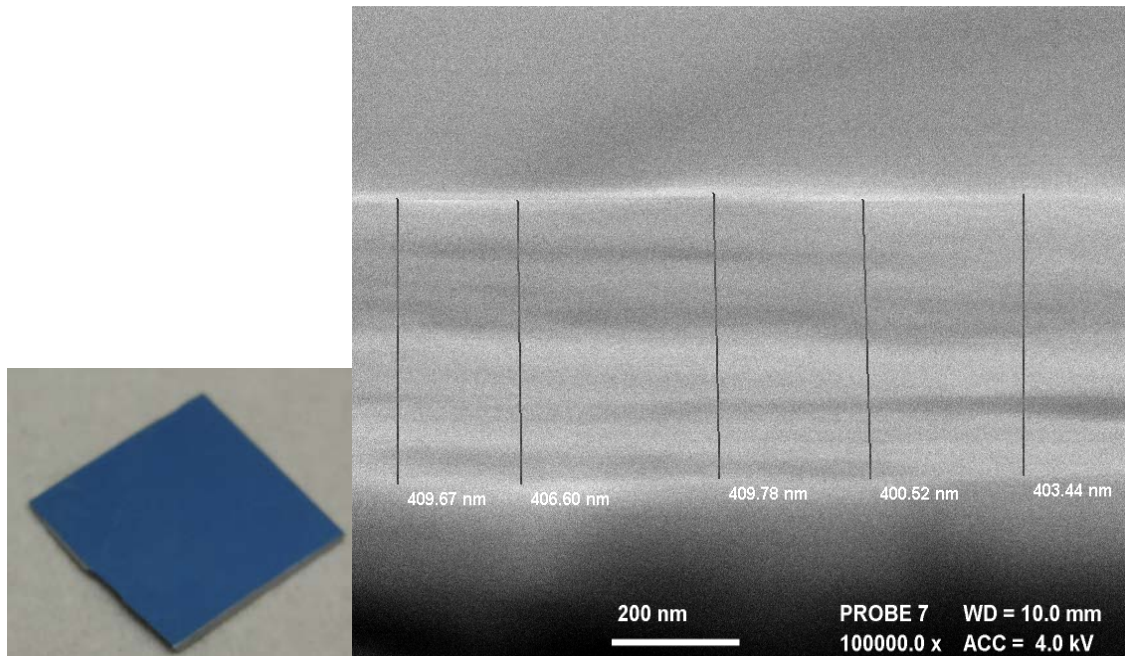
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P.Estrela@bath.ac.uk

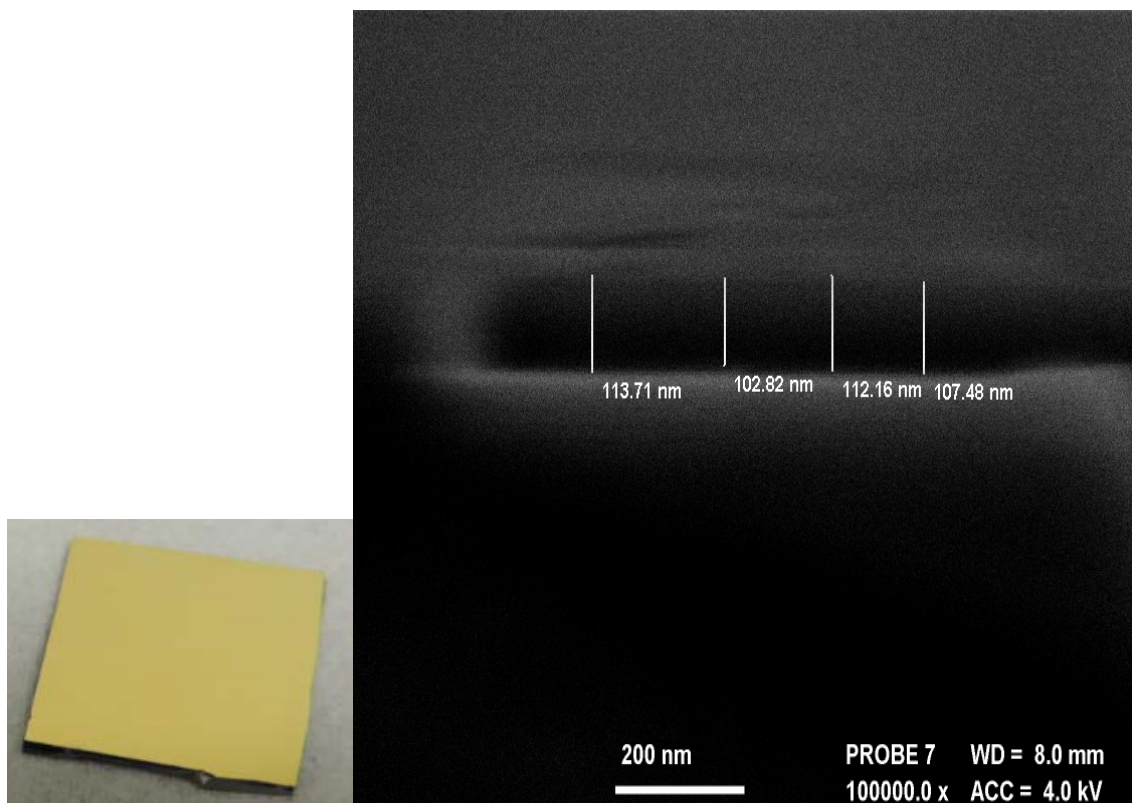
Wafer characteristics

A. SEM Characterisation

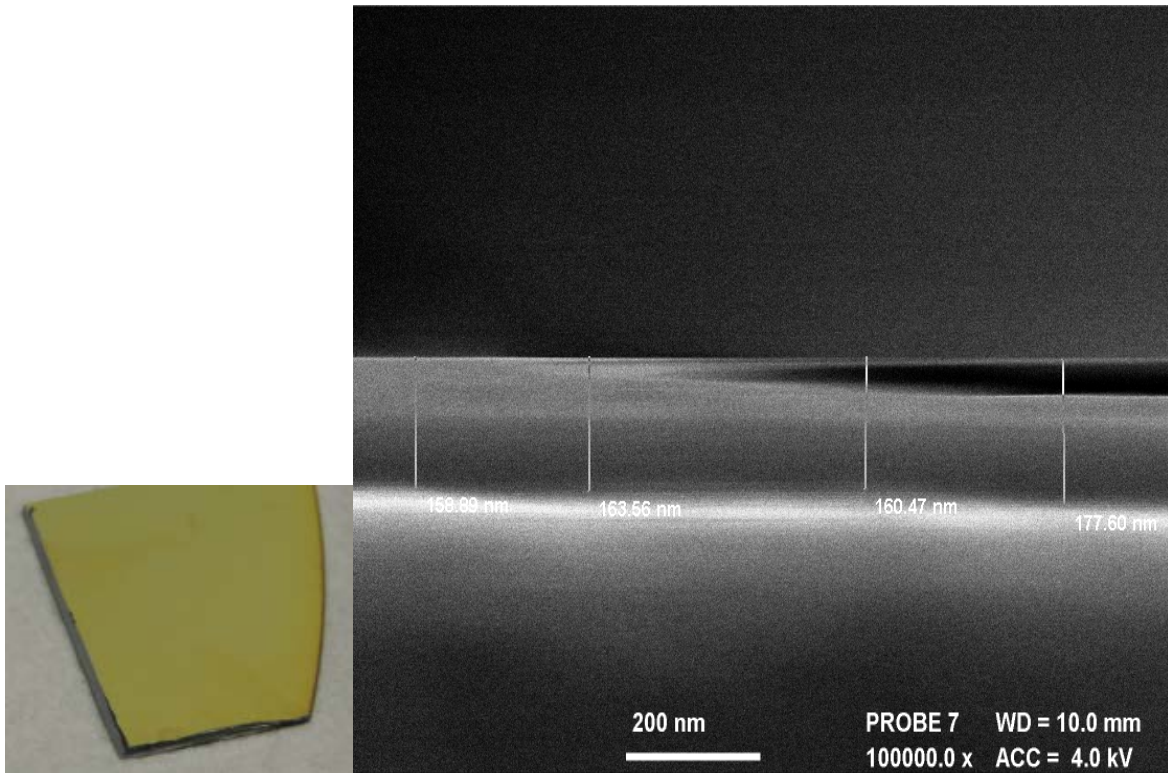
Cross section of wafer # 1, as seen under SEM



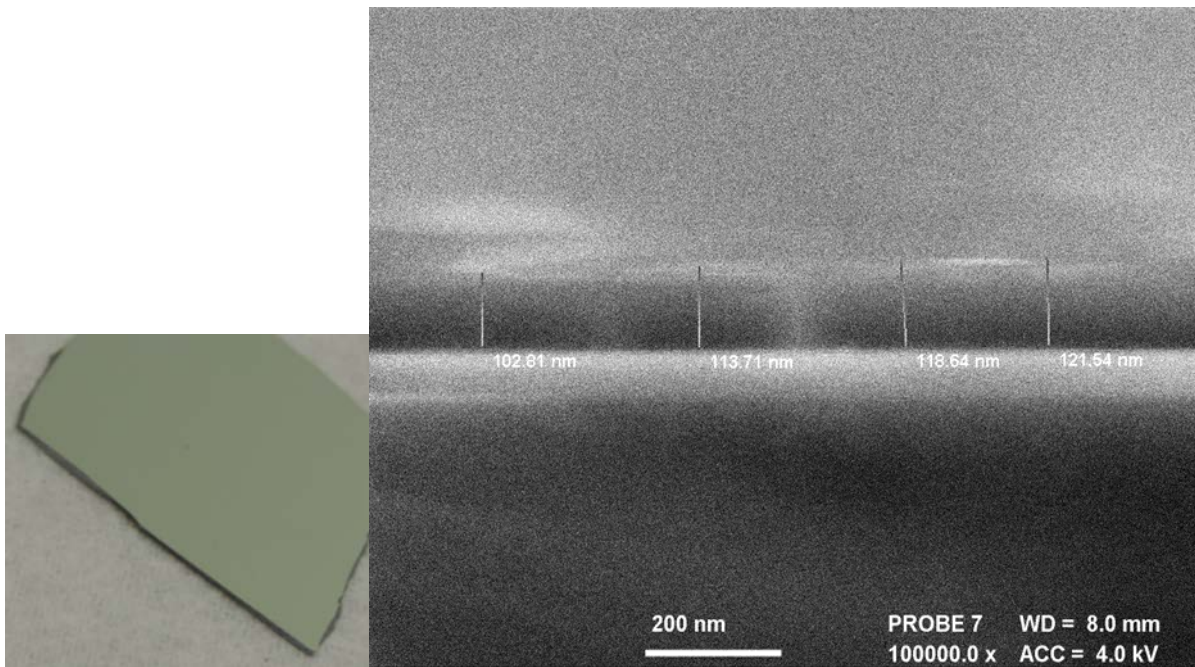
Cross section of wafer # 2, as seen under SEM



Cross section of wafer # 3, as seen under SEM

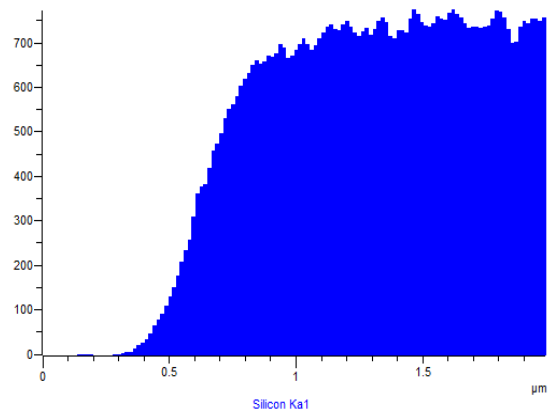
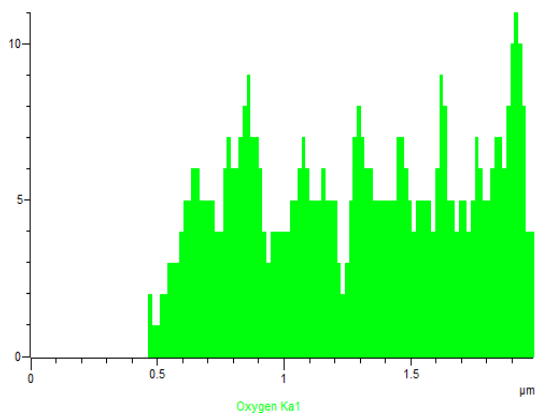
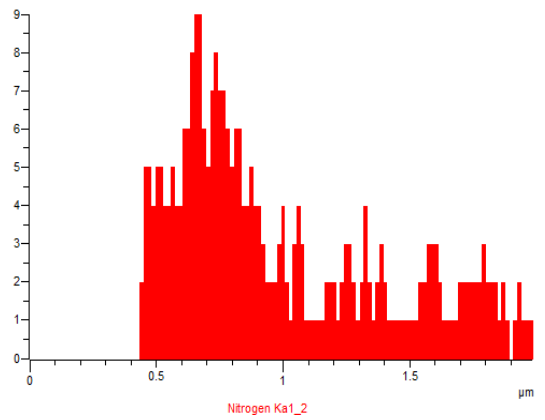
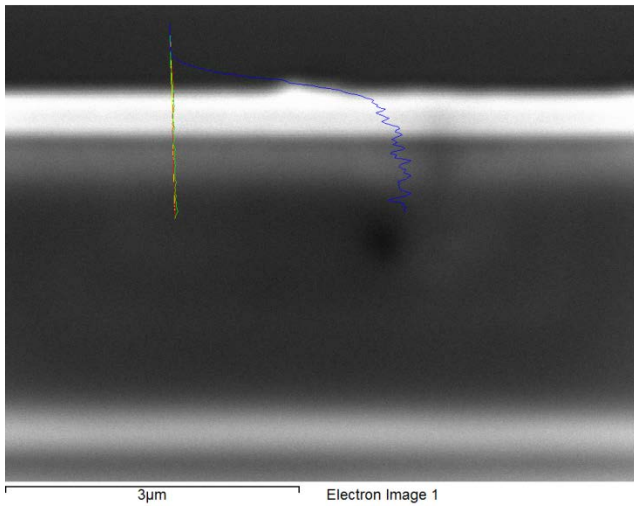
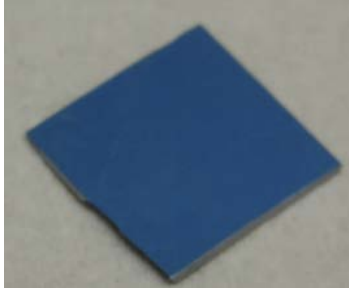


Cross section of wafer # 4, as seen under SEM

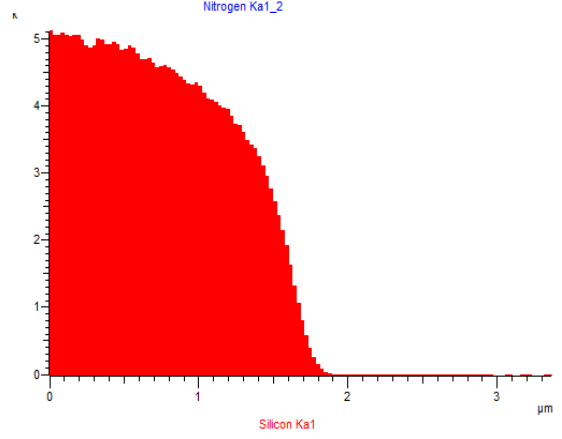
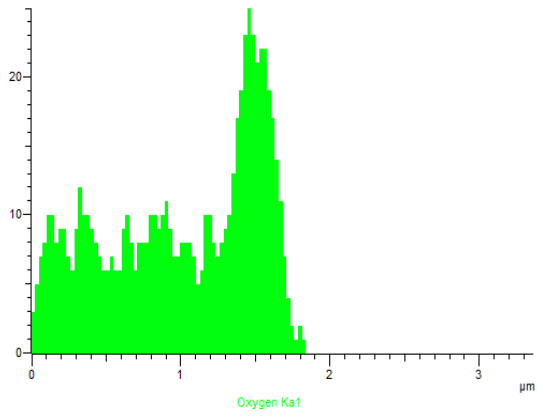
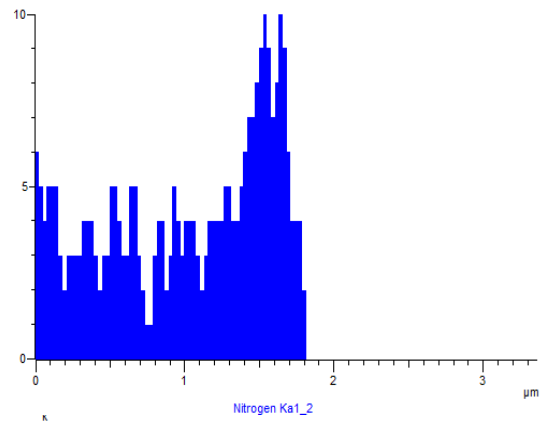
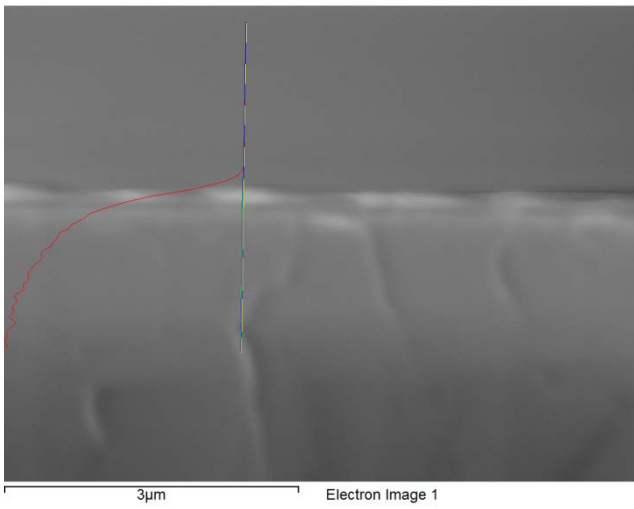


B. Energy Dispersive X-ray spectroscopy

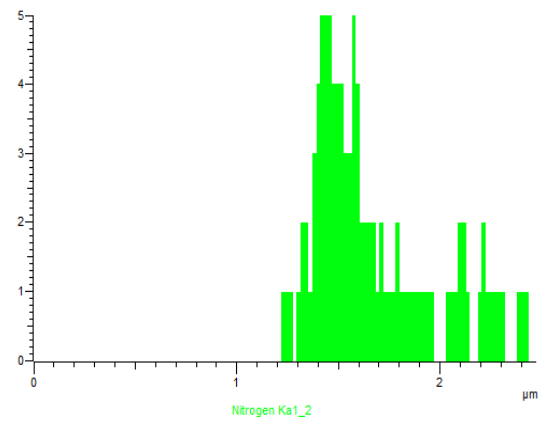
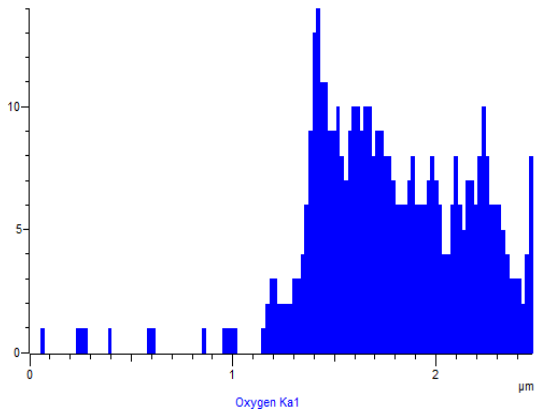
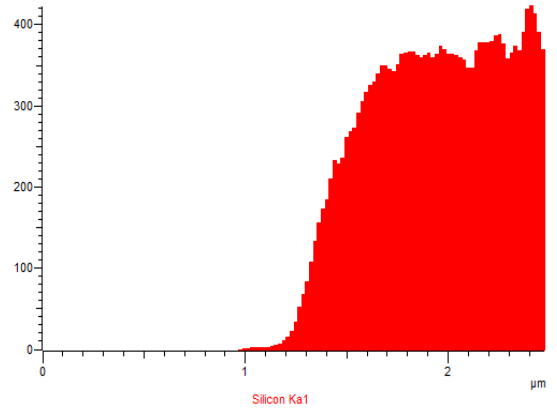
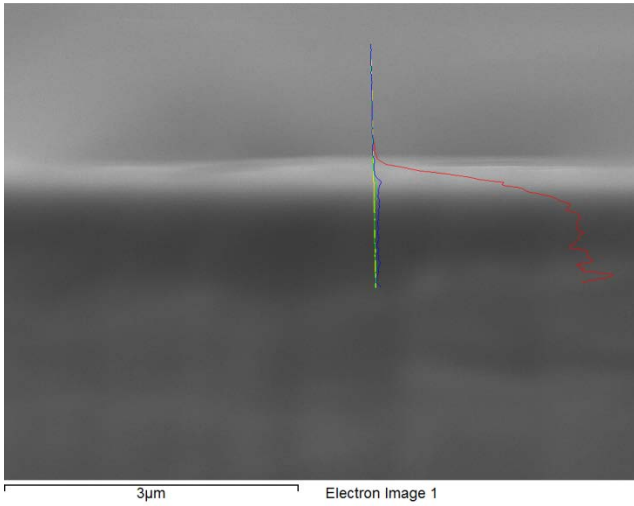
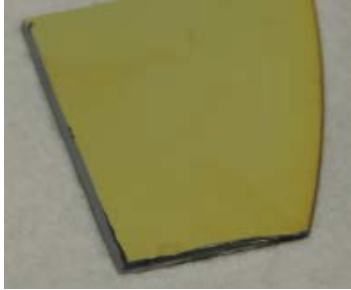
EDX analysis showing nitrogen, oxygen and silicon contents of wafer #1



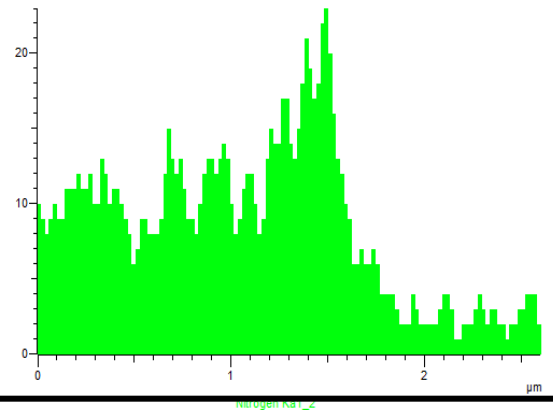
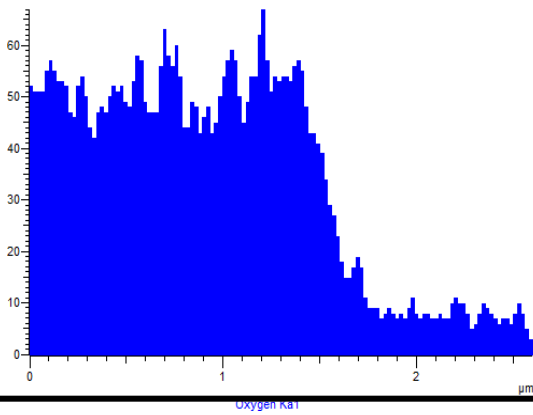
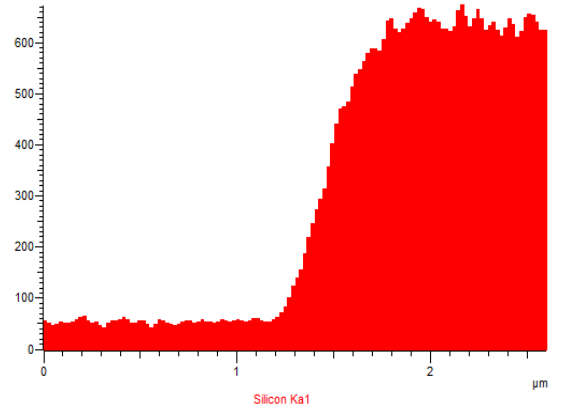
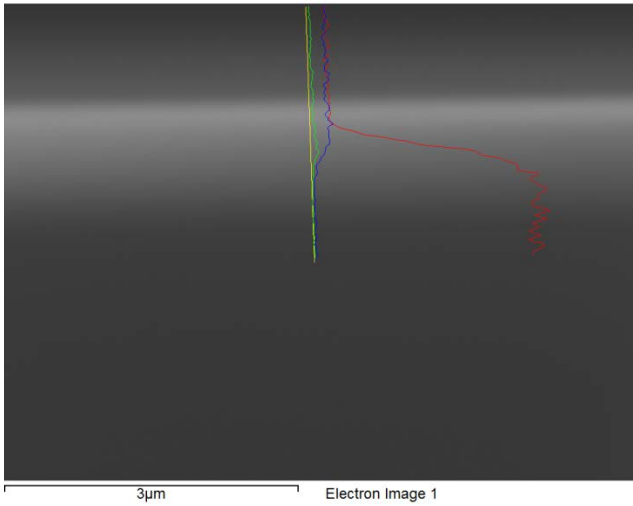
EDX analysis showing nitrogen, oxygen and silicon contents of wafer #2



EDX analysis showing nitrogen, oxygen and silicon contents of wafer #3

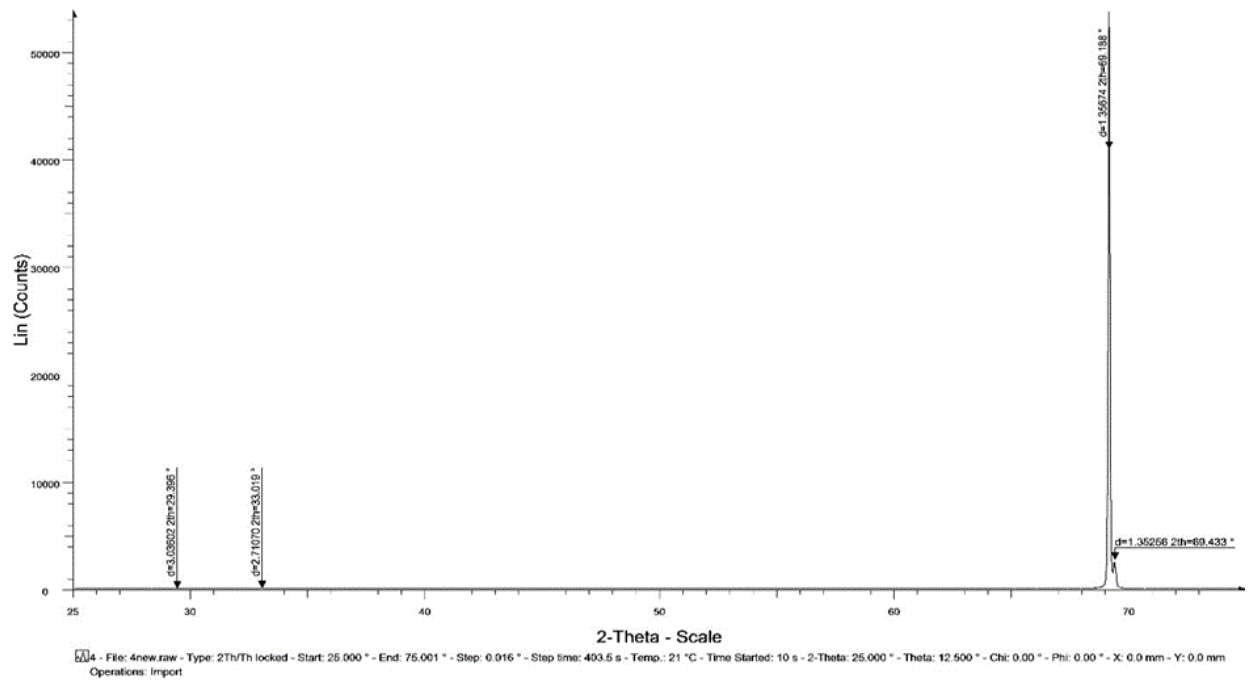
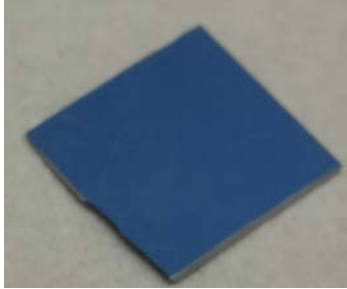


EDX analysis showing nitrogen, oxygen and silicon contents of wafer #4

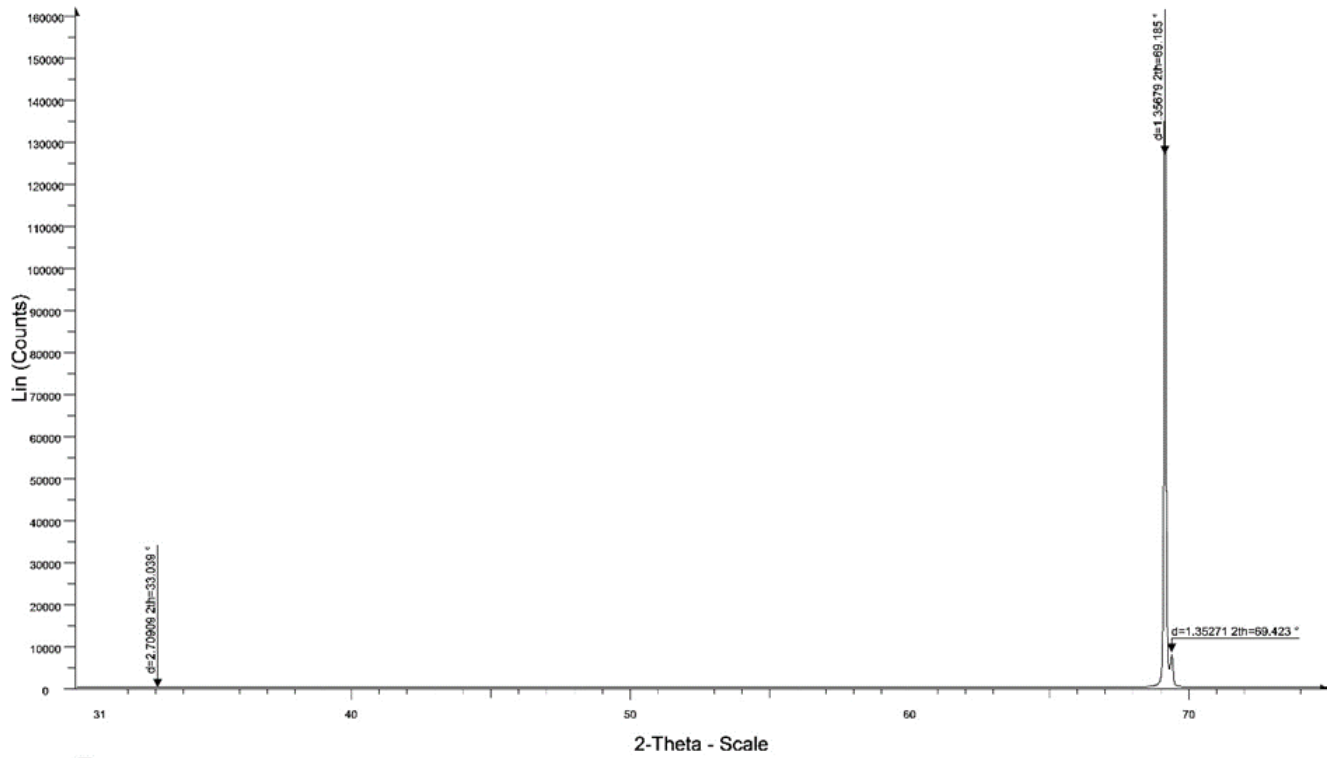


C. XRD Characterization

#1

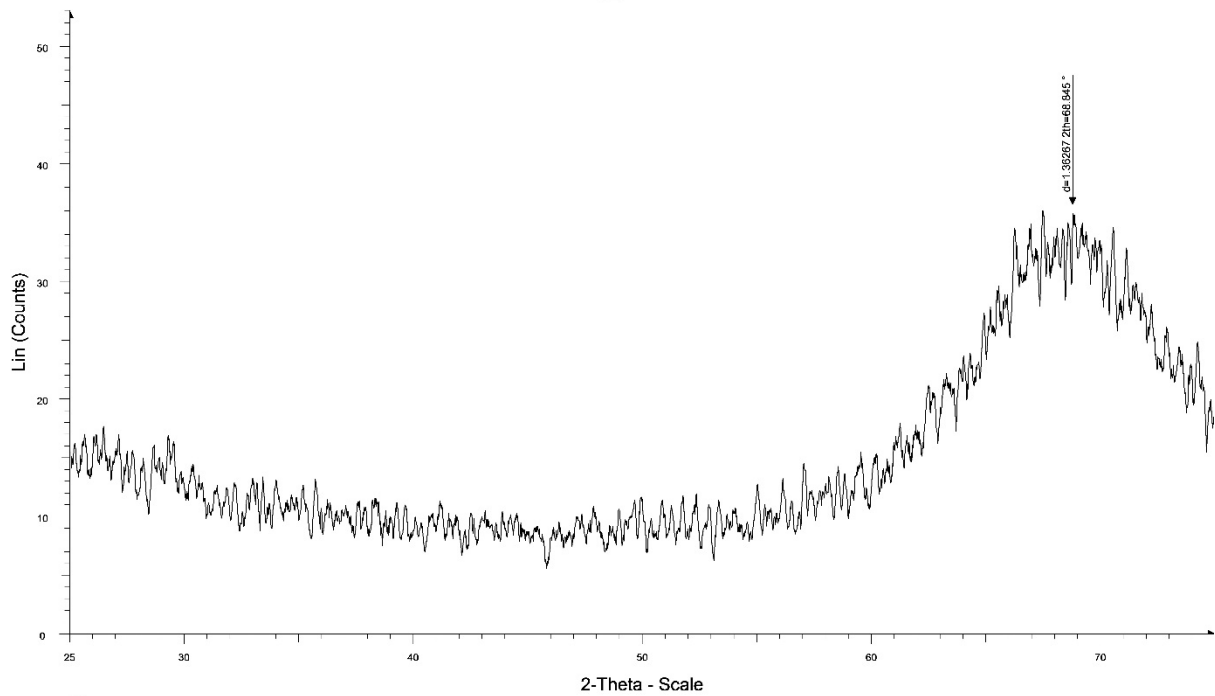
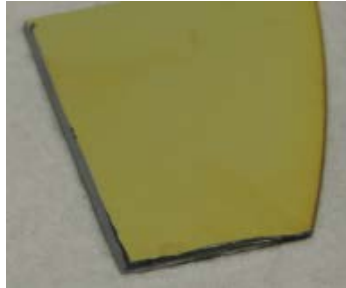


#2



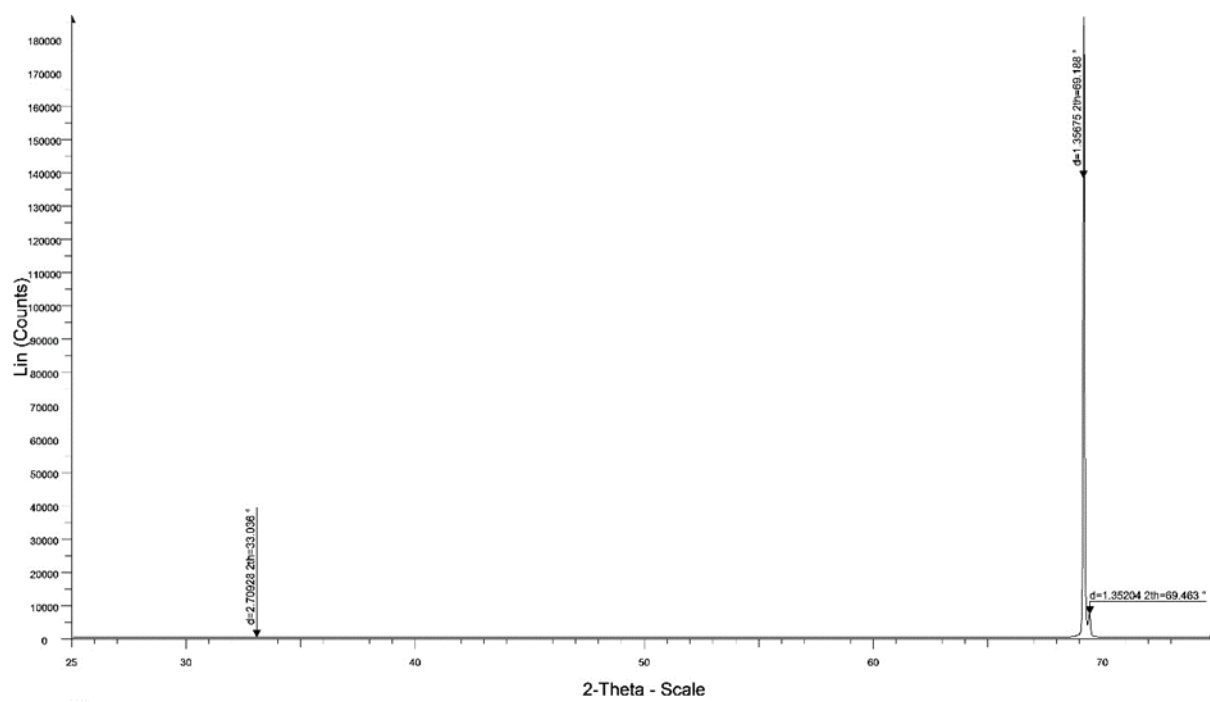
1 - File: 1new.raw - Type: 2Th/Th locked - Start: 15.000° - End: 75.005° - Step: 0.016° - Step time: 403.5 s - Temp.: 21 °C - Time Started: 16 s - 2-Theta: 15.000° - Theta: 7.500° - Chi: 0.00° - Phi: 0.00° - X: 0.0 mm - Y: 0.0 mm - Operations: Import

#3



File: 2.raw - Type: 2Th/Th locked - Start: 25.000 ° - End: 75.001 ° - Step: 0.016 ° - Step time: 403.5 s - Temp: 21 °C - Time Started: 10 s - 2-Theta: 25.000 ° - Theta: 12.500 ° - Chi: 0.00 ° - Phi: 0.00 ° - X: 0.0 mm - Y: 0.0 mm - Z: Operations: Smooth 0.150 | Import

#4



File: 3new.raw - Type: 2Th/Th locked - Start: 25.000 ° - End: 75.001 ° - Step: 0.016 ° - Step time: 403.5 s - Temp.: 21 °C - Time Started: 9 s - 2-Theta: 25.000 ° - Theta: 12.500 ° - Chi: 0.00 ° - Phi: 0.00 ° - X: 0.0 mm - Y: 0.0 mm - Operations: Import

D. pH characterization of all wafers

