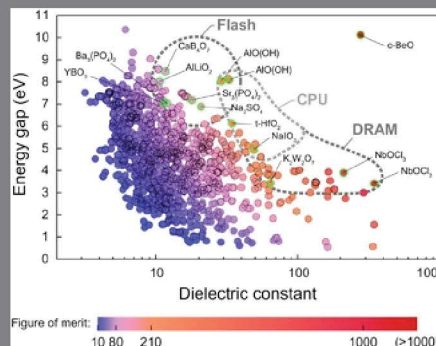


Dielectric Material Landscape



Materials Analysis



Dielectric materials are an essential part of modern technologies as industry progresses. The conventional thermal and CVD SiO_2 are being replaced with high K dielectrics such as HfO_2 , ZrO_2 , and Al_2O_3 . These thinner dielectrics require more advanced characterization which is why you should consider using our services listed below.

Why Work with Us?



Expertise in Dielectric Analysis
Highly experienced with advanced technology



Affordable Price
Up to 40% lower than industry pricing



Free Consultation
Before and after service



In-Depth Data Interpretation
As a second opinion to yours



Quality Assurance Program
Free remeasurement if not satisfied

Advanced Dielectric Measurements



Objective

Atomic Level Feature

Hydrogen Measurement

Atomic Composition

3D Reconstruction of Elements



Solution

TEM/STEM/EDS/EELS

SIMS and HFS

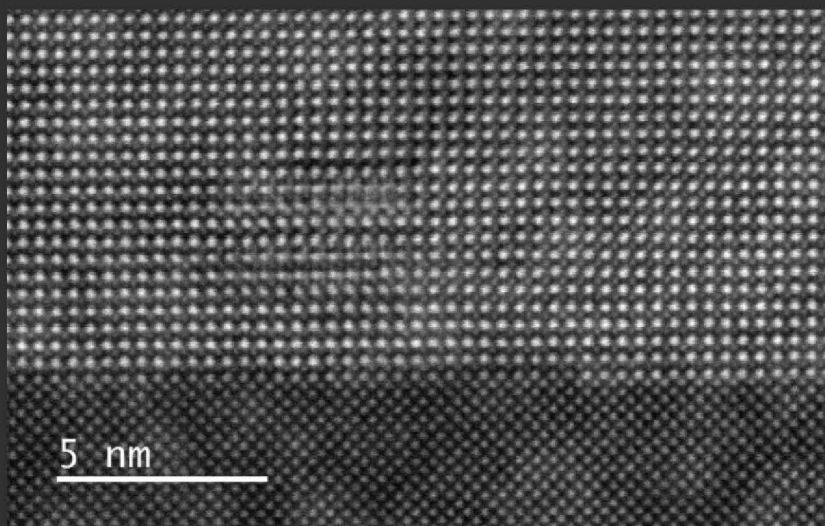
Depth Profile XPS

ToF-SIMS

Key Highlighted Technologies

TEM/STEM/EDS/EELS

- Atomic resolution imaging
- Nanometer resolution elements mapping
- Crystal defects check
- III-V super lattice



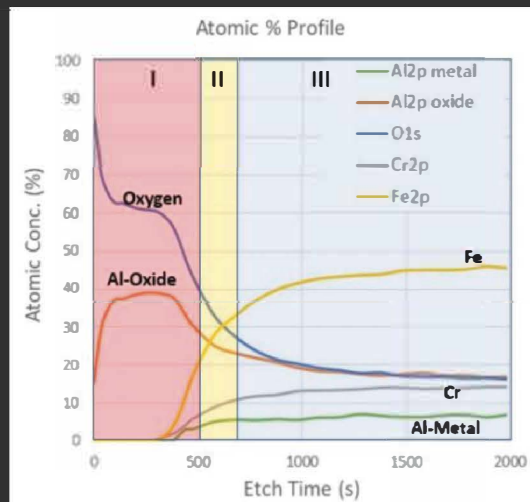
TEM prep and measurements starting from \$600 per sample



XPS/D-XPS/XRD/XRR

- Composition and chemical state check (XPS)
- Crystalline phase, orientation, strain check (XRD)
- Film thickness, density, roughness measurement (XRR)

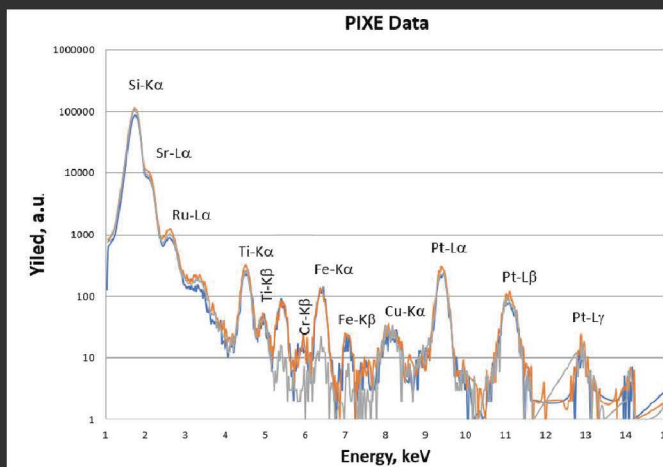
X-ray techniques starting at \$250 per sample



RBS/HFS/PIXE/NRA

- HFS: Hydrogen Forward Scattering Spectrometer (Measure H element)
- PIXE: Particle-induced X-ray Emission (Identify heavy element on RBS instrument)
- NRA: Nuclear Reaction Analysis (Measure low-Z elements)

RBS Techniques starting at \$500 per sample



M-SIMS/ToF SIMS

- Surface/Depth element profiling analysis
- Trace element Analysis in ppb level
- Ability to reconstruct objects in 3D based on composition

SIMS Measurements starting at \$300 per sample

