

# AES Nanoprobe (Auger Electron Spectroscopy)

오제이 전자분광기

Scanning AES (Auger Electron Spectroscopy) Nanoprobe is a fast non-destructive analytical technique used to identify and quantify the chemical elements in the top few atomic layers of a surface or exposed interface. Under ultra high vacuum conditions, a focused beam of electrons impinges the sample surface and the emitted auger electrons are analyzed by the electron energy analyzer.

## Model

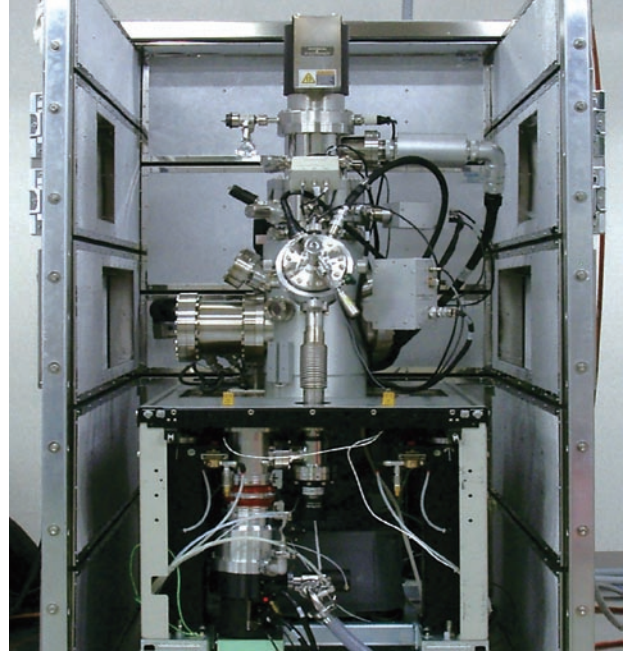
PHI-700 (ULVAC-PHI, Japan)

## Specifications

- Base pressure :  $< 5 \times 10^{-10}$  Torr
- Auger SEM spatial resolution : 7nm ( 20 keV, 1 nA )
- Energy resolution :  $< 0.5\%$
- $Cu_{LMM}$  sensitivity :  $> 780$  Kcps (10 keV, 10 nA )
- S/N ratio :  $> 700$  (10 keV, 10 nA )
- Practical depth profile impact voltage : 100-5000 V
- Shadowing during imaging : No shadowing
- Analyzer type : CMA
- Compucentric zalar depth profiling : Yes

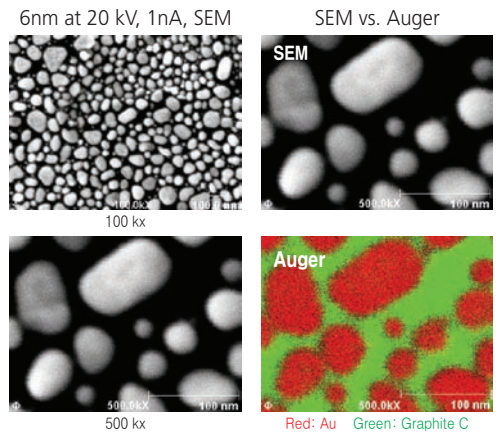
## Applications

- SEM image
- Elemental identification ( $Z \geq 3$ )
- Elemental quantification
- Depth profiling with ion beam sputtering
- Chemical state identification



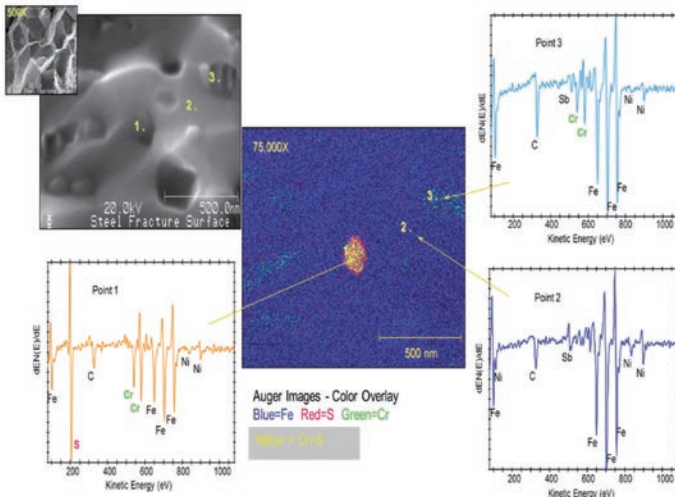
Location L5113E Tel.02-958-5974

## SEM & Auger image mapping



## In-situ fracture analysis/mapping & spectra

- Grain boundary precipitation



## Depth profile data

