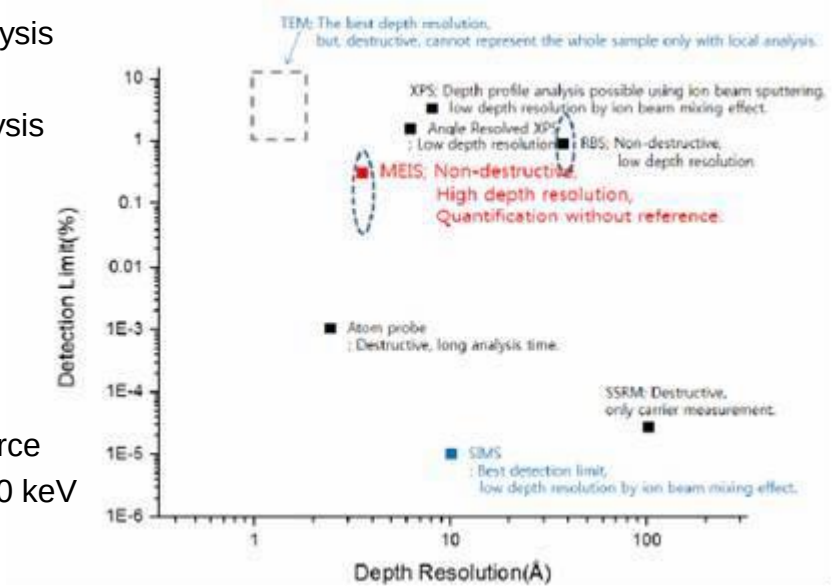
Medium Energy Ion Scattering **MEIS K120** For Surface Analysis

Applications

- Ultra thin film, Nano-particle analysis
- Time-of-Flight surface analysis
- Qualitative and quantitative analysis
- Patterned sample analysis
- Semiconductor, LCD, Bio, etc.
- Quantum-dot analysis



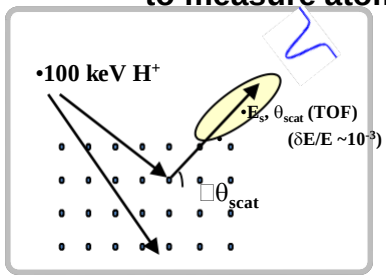
Specifications:

- Projectile : He^+, Ne^+
- Source type : RF plasma ion source
- Acceleration energy : 70 keV~120 keV
- Delay line detector
- Focused beam size : < 10 ㎛
- High resolution of depth (3Å)
- Short acquisition time

Benefits:

Atomic scale depth resolution
Selection of up to 3 layers
High spatial resolution
Nano-particle size and shape
Absolute quantification
Non-destructive
Lower cost than TEM

Principle: Time-of-Flight, Focused Ion Beam < 10um Surface Analysis to measure atomic mass, depth and surface structure



K (m_1/ m_2, q) = E_s/ E_1 , Coulomb scatter cross section,

small charge transfer : composition absolute analysis

dE/dx(10~100 eV/ML) & high resolution analysis

: atomic layer depth resolution (~10 nm surface, interface analysis of ultra thin film)

channeling & blocking : local strain, depth profile of atomic structure