

TEM (Tecnai)

투과전자현미경

Transmission electron microscope equipped with field emission gun has sub nm image resolution and spatial resolution, necessary for nano scale analysis of advanced materials. Atomic resolution imaging as well as nano region spectroscopic imaging using PEELS and energy filtering is possible. With an addition of Lorentz lens and holographic unit, electrical and magnetic field measurement can be made.

Model

FEI (Tecnai F20 G²)

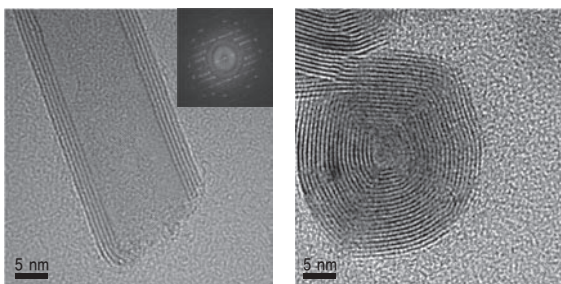
Specifications

- Accelerating voltage : 50 ~ 200 kV
- Image resolution : < 0.23 nm
- Electron probe size : < 0.3 nm
- Magnification : 25 ~ 1,030,000 X
- Specimen double tilting : $\pm 40^\circ / \pm 20^\circ$

Applications

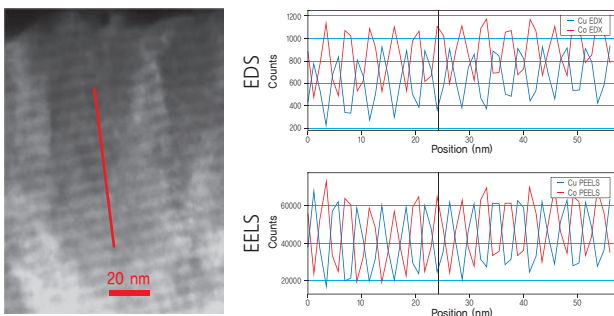
- BF/DF/SADP/CBED
- High resolution structure analysis
- EDS
- EELS
- Electron holography
- Lorentz microscopy
- Electron tomography

High resolution structure analysis



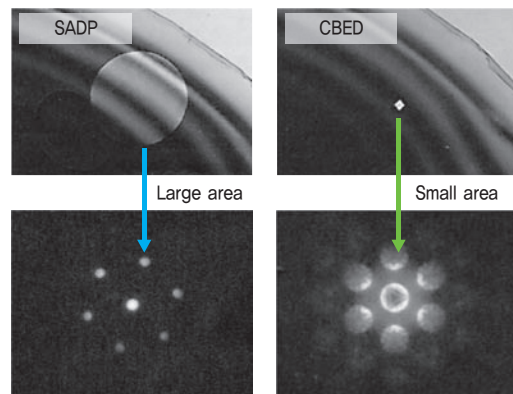
HRTEM of carbon nanotubes

EDS & EELS line-profile with STEM



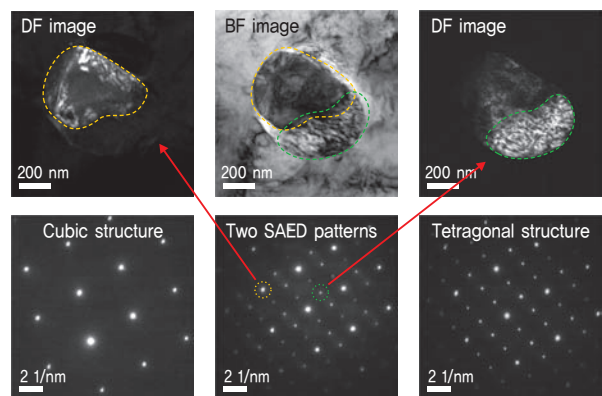
Location L5117E Tel.02-958-5983

Diffraction pattern



Crystal structure information from selected area

Dark field image analysis



Precipitation analysis by DF image & SADP