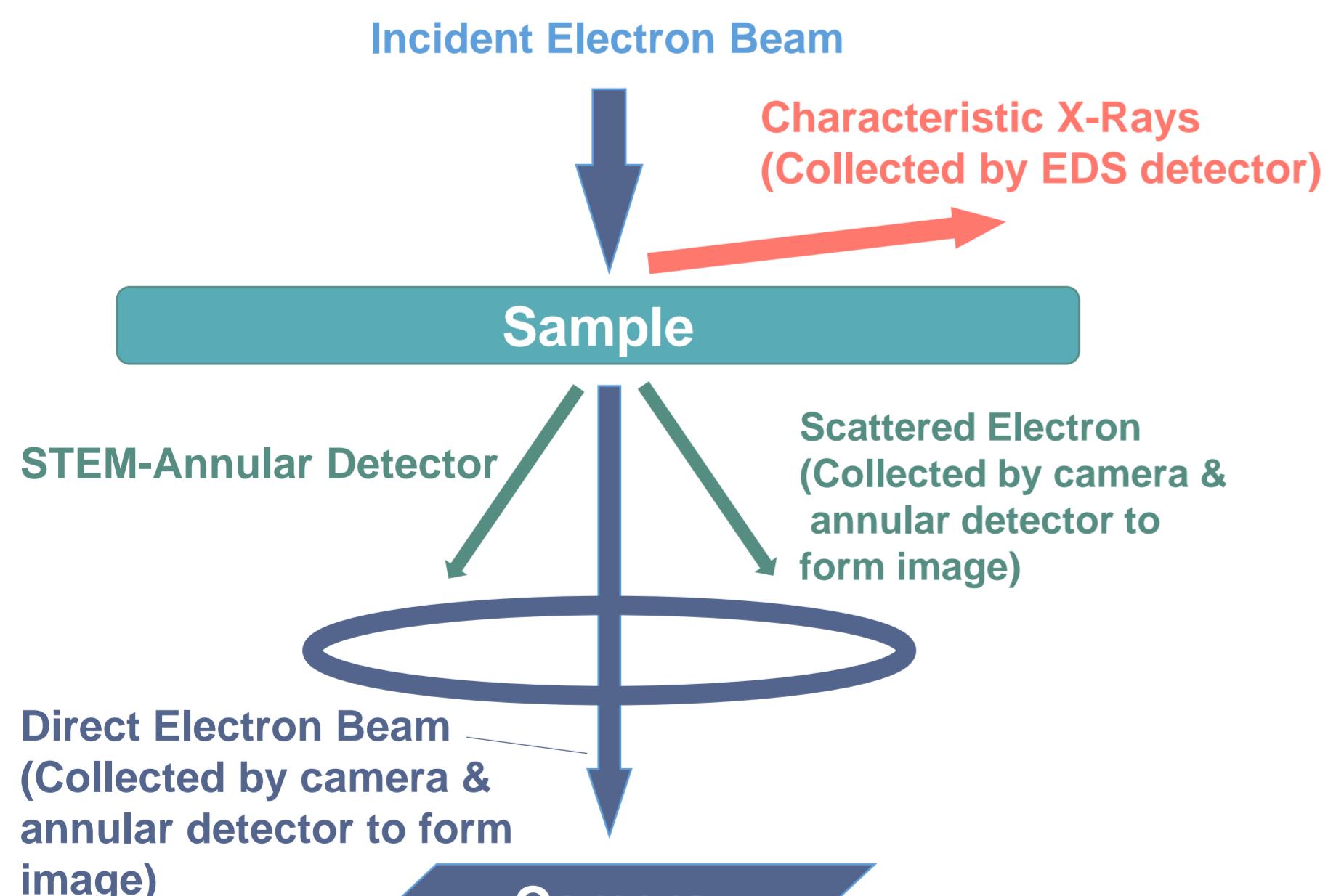


## Specification

### JEOL JEM1400Flash

Filament	LaB <sub>6</sub>
Acc. Voltage	10 ~ 120 kV
TEM Resolution	0.14 nm (Lattice) / 0.33 nm (Point)
STEM Resolution	1.5 nm
TEM Magnification	x 10 ~ 1200000
STEM Magnification	x 120 ~ 2000000
Spot Size	30 nm
<b>Gatan Rio9 CMOS Camera</b>	
Sensor Size	27.8 x 27.8 mm
Pixels	3072 x 3072
Full Sensor Read-Out Speed	15 fps
Dynamic Range	> 16 bits
<b>Oxford Ultim max EDS</b>	
Sensor Size	80 mm <sup>2</sup>
Resolution	C ≤ 56 eV, F ≤ 64eV, Mn ≤ 127 eV

## Working Principle

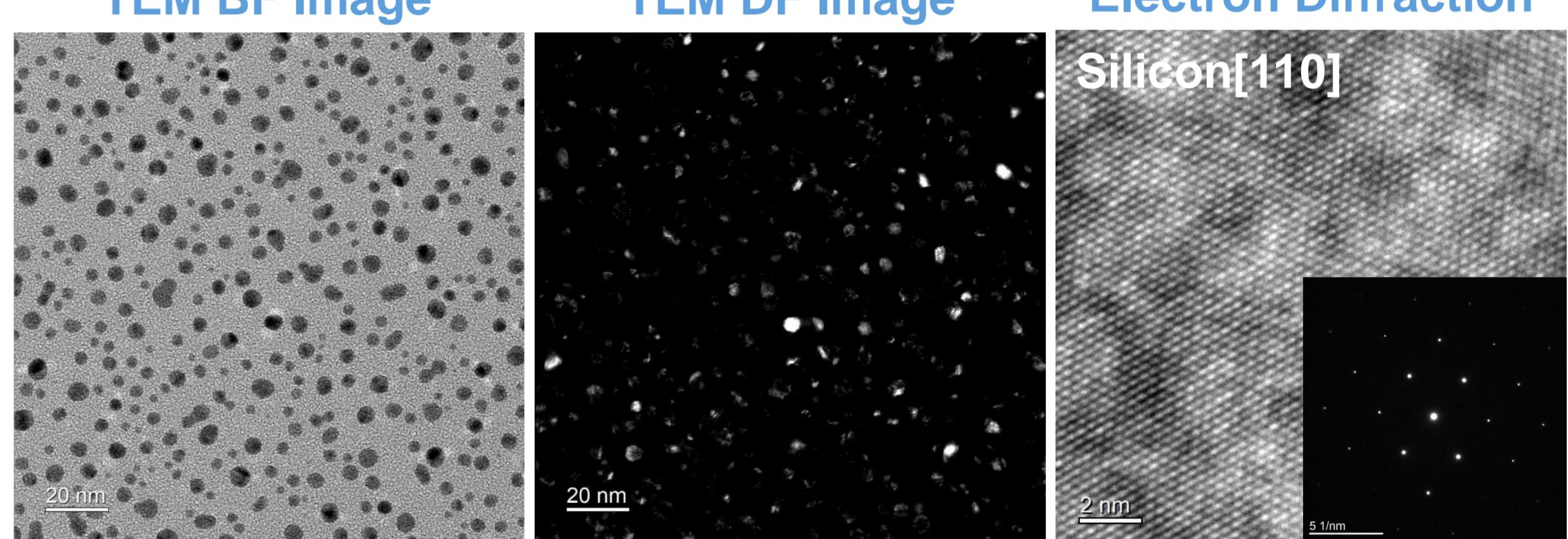


## Function

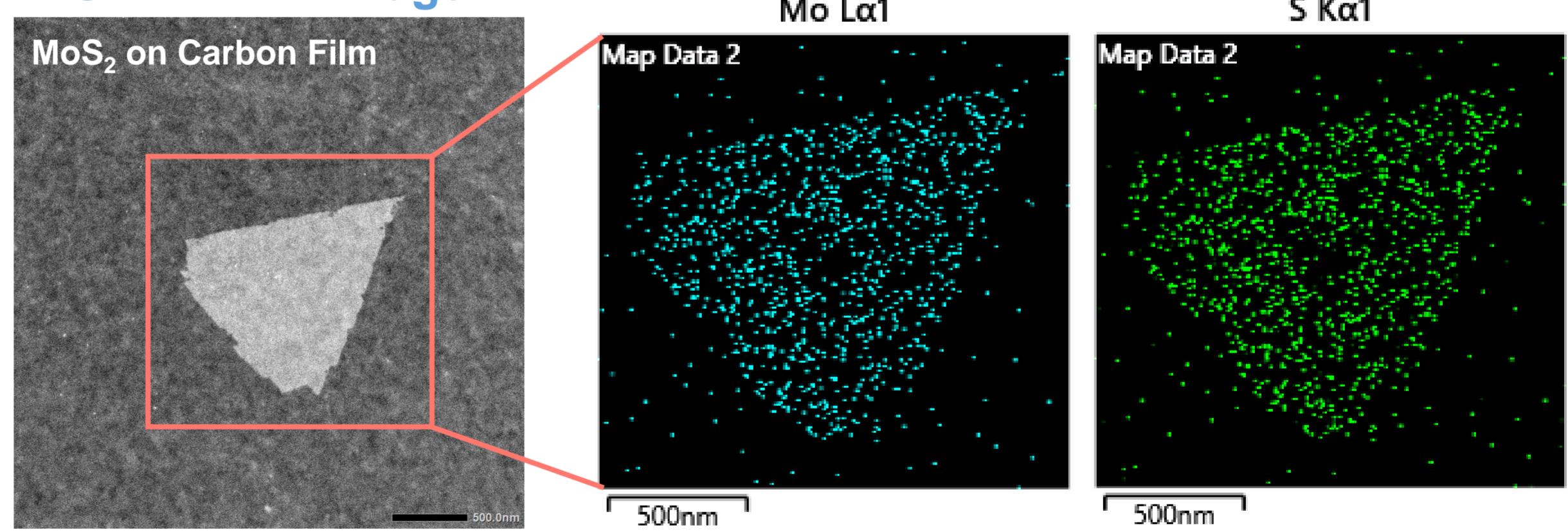
- Low-Voltage (10 ~ 120 kV) to reduce damage of sample
- Bright-Field and Dark-Field Image
- Selected Area Electron Diffraction, SAED
- STEM Mode with Annular Detector, STEM-ABF & ADF
- Energy Dispersive Spectrometer, EDS
- Multiple Types of Holders:
  - Specimen quick change holder (X tilt ± 14°)
  - Specimen tilting beryllium holder (X & Y tilt ± 9°)
  - High tilt specimen holder (X tilt ± 70°)
  - Beryllium analytical holder (Stronger EDS signal)
  - Specimen quartet holder (4 Samples in one holder)
  - Heating holder (up to 1300 °C)

## Application

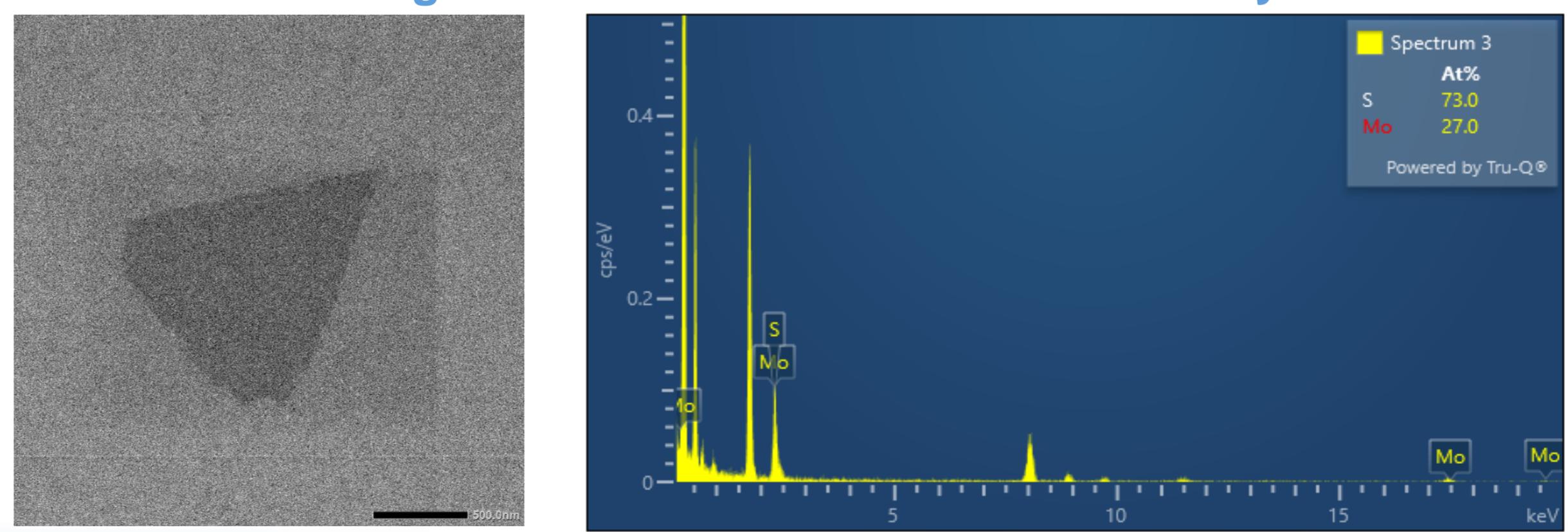
Lattice Image & Selected Area Electron Diffraction



STEM ADF Image



STEM ABF Image



EDS Elemental Analysis