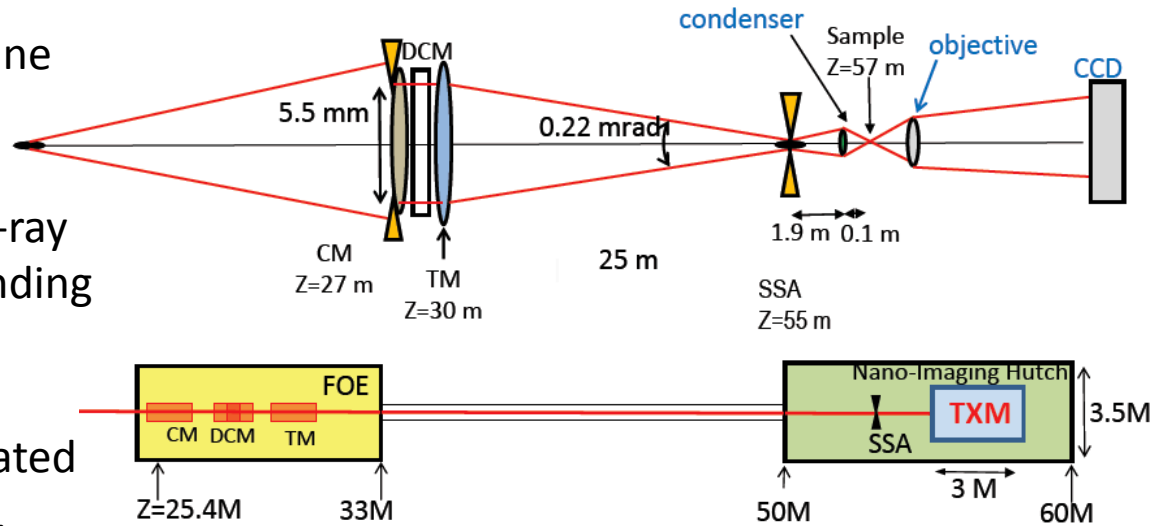
Full field X-ray Imaging Beamline (FXI)

FXI at NSLS-II

- FXI is a hard x-ray microscopy beamline that will provide a state-of-the-art implementation of a 30 nanometer resolution, high speed transmission x-ray microscope (TXM) for samples demanding the highest resolution.
- Designed for XANES imaging
- Precise metrology system for automated tomography and interior tomography.
- Large user community serving national needs and addressing fundamental issues across many fields



Examples of Science Areas & Impact

- ENERGY: Real-time imaging 3D imaging of solid oxide fuels, biofuels, and energy storage materials
- MATERIALS SCIENCE & ENGINEERING: *In situ* imaging of functional nano-materials and materials in extreme environments

FXI Beamline Capabilities

TECHNIQUE(S): transmission x-ray microscopy (TXM) with absorption or phase contrast

SOURCE: Damping wiggler, 1.85 T, 10 cm period

ENERGY RANGE: 5-12 keV

SPATIAL RESOLUTION: 30 nm (TXM)