

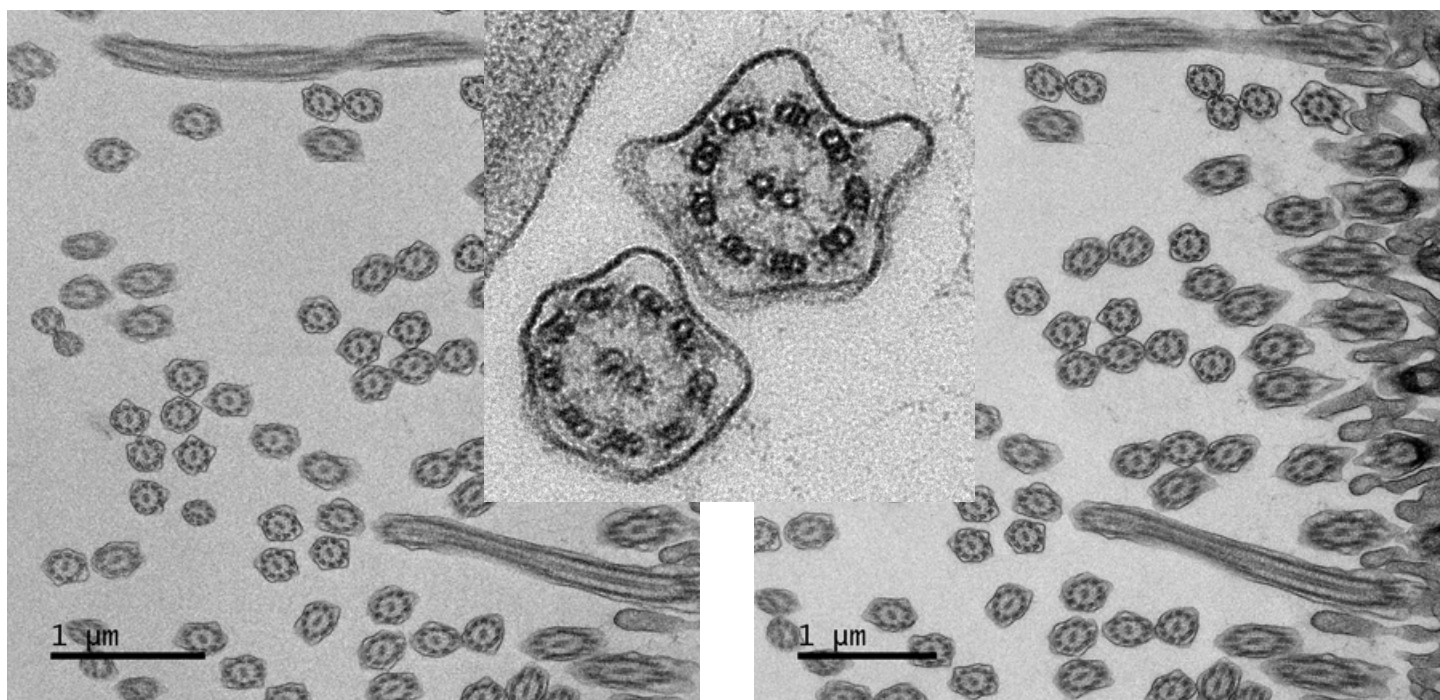
2100Plus: A 200kV LaB₆ Multi-purpose TEM/STEM for both Materials and Biological Needs

The 2100Plus is a multi-purpose 60-200kV TEM/STEM equipped with a LaB₆. This new generation of multi-purpose electron microscope is designed specifically to meet today's diversified needs. The total time to switch between 200kV to 80kV and begin imaging is less than 2 minutes. Meaning that imaging can be optimized at any kV quickly and easily.

Many of today's core laboratories require imaging and analysis of both materials and biological samples. The 2100Plus offers both high resolution and high contrast imaging of low contrast specimen such as biological material stained en-bloc. Imaging of Cryo samples can be accomplished at <10Å resolution aiding in screening of Cryo samples prior to dedicated sample imaging runs on FE-TEM systems such as the CRYO ARM™ or Cryo-GRAND ARM™.

At 200kV lattice imaging and analysis of materials samples can be accomplished effortlessly. Nano Beam Diffraction (NBD), Convergent Beam Electron Diffraction (CBED) offers probe sizes on the order of <1nm with direct control over the Alpha angles used for optimizing each mode of diffraction. STEM imaging and EDX analysis when coupled with a large area SDD EDS detector, means that full imaging and analysis is offered for characterization of nano materials systems.

The 2100Plus is a modern TEM/STEM system that would enhance any laboratories needs for imaging of both materials and biological samples.



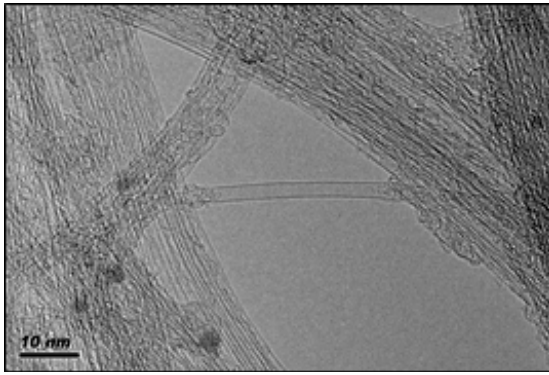
200kV

80kV

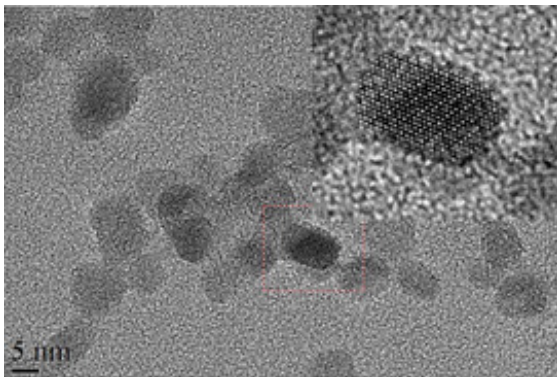
Frog Tissue

Sample data courtesy of Rick Portman, Biological Science Lab Manager
University of Tulsa (Data is unprocessed)

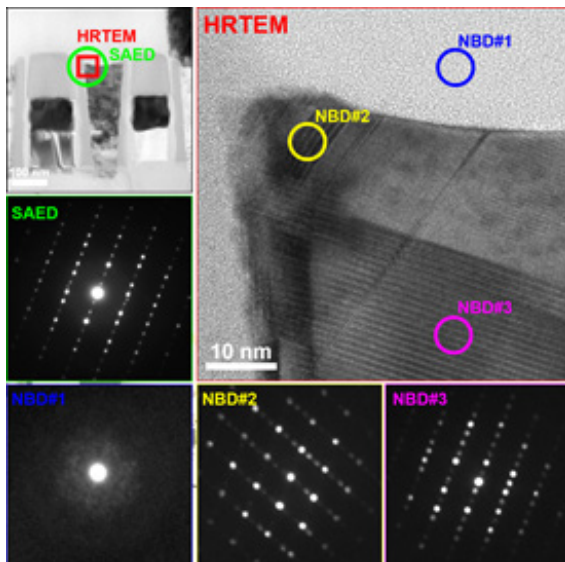
MATERIALS EXAMPLES



Single wall CNT-120kV



BaSrTiO₃
Courtesy of Stephan O'Brien
City College of New York

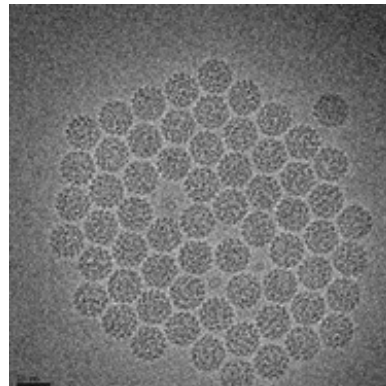


NanoBeam Diffraction

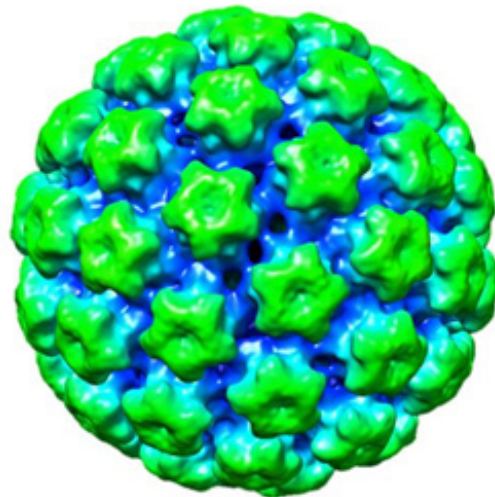
BIOLOGICAL EXAMPLES



Rat Intestine



HPV Virus
Courtesy of: Bob Ashley and Susan Hafenstein
Penn State College of Medicine, Hershey PA



Parvo virus with corresponding model to 9.6Å