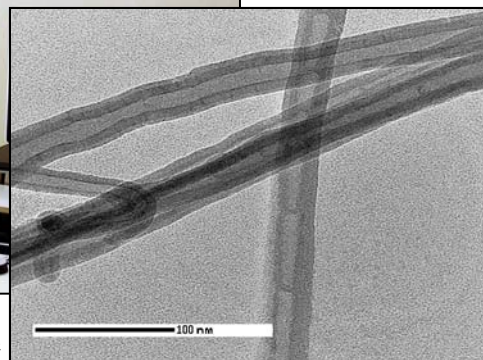
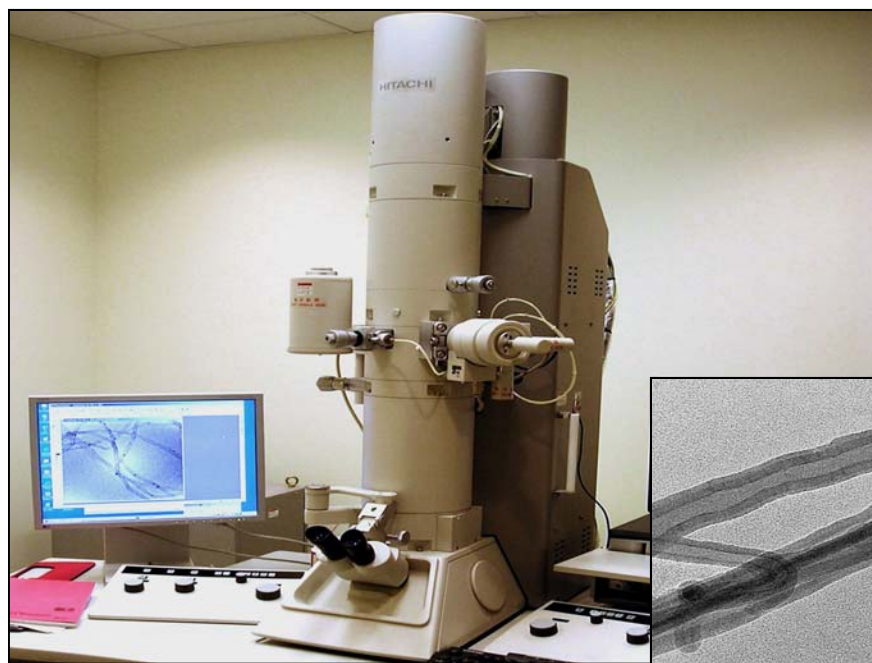


HITACHI H-7600 TRANSMISSION ELECTRON MICROSCOPE (TEM)

Instrument Quick Stats

- Accelerating voltage of 40-120 kV.
- Standard configuration includes both high-contrast and high-resolution modes.
- High-contrast mode optimized for biological specimens with magnification range x700—x200,000.
- High resolution mode optimized for fine structural analysis of material specimens with magnification range of x1,000—x600,000.
- Ultimate resolution, point to point at 0.36 nm and crystal lattice at 0.204 nm.
- Bottom-mounted CCD camera for acquisition of digital images using AMT© image-processing software.
- Selected area diffraction capabilities.



The H-7600 is an advanced, versatile Transmission Electron Microscope (TEM) which has been developed with ease of use as the main design goal and requires minimal operator training and experience. The TEM has a low dose function which allows it to operate with minimal electron beam irradiation. This minimizes damage to sensitive specimens. A TEM image of multi-walled carbon nanotubes is shown above.

The H-7600 also has a high performance zoom lens column to give high resolution up to x600,000 without need for image rotation. Auto-focus and auto-stigmation enable the operator to precisely and quickly focus the image and correct astigmatism.

Electron diffraction patterns may be generated to obtain information about single or polycrystalline materials. The field-limiting aperture allows for diffraction of selected areas. The orientation and atomic ordering of the crystal lattice structure can be determined using the d-spacing of their diffraction pattern. Photomicrographs from this instrument can be acquired in a variety of digital formats using a bottom-mounted CCD camera.

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