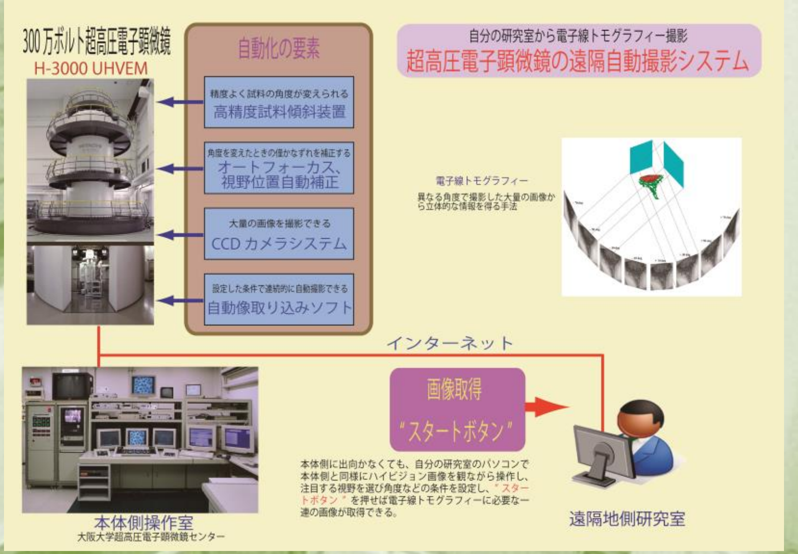
Research Division of Fundamental Technology,
Research Center for Ultra-High Voltage Electron Microscopy

（Cooperative Area for Department of Quantum Electronic Device Engineering,
Graduate School of Engineering)

Research topics:

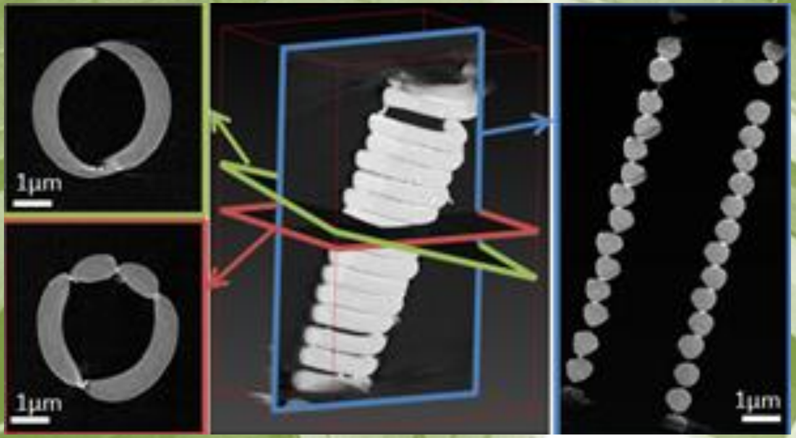
- Development of automated electron tomography system in ultra-high voltage electron microscope.
- Theoretical/experimental researches of the transmission ability of high energy electrons for quantitative 3D observations of micron-sized functional materials.
- Theoretical study of aberration-corrected electron optics.
- Analysis of atomistic structures of various nano materials by aberration-corrected electron microscopy.
- Development of electron diffractive imaging.



異なる角度で撮影した大量の画像から立体的な情報を得る手法

本体側に出向かなくても、自分の研究室のパソコンで本体側と同様にハイビジョン画像を観ながら操作し、注目する視野を選び角度などの条件を設定し、“スタートボタン”を押せば電子線トモグラフィーに必要な一連の画像が取得できる。

Ultra-high voltage electron microscopy equipped with the automated tomography system.



Precise 3D reconstruction of carbon microcoil with diameter of 3.7 μm.

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