The CT-NANO is a fully operating scanning electron microscope with capabilities of Nano-CT measurements on specimen like light-metal-alloys and fiber composites.

It delivers Voxel-sizes in ranges from 39 nm to 3 µm, a geometrical magnification up 5500x and a maximum photon energy of 30 keV. An EDS-Detector provides an additional correlation between XRF signal of specimen and reconstructed volume of the CT-NANO.

With a direct-converting detector and a size-optimized field-of-view, the CT-NANO provides a representative test volume. The CT-NANO X-ray microscope is based on a scanning electron microscope and uses the electron-beam for generating the x-ray at an ultra-sharp needle with a focal spot size of 70 nm.

Explore new possibilities for visualisation with 3D X-ray imaging for materials research, life sciences, natural resources and industrial applications.

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Application Examples

**MATERIAL SCIENCE**
AlCu-Alloy - 3D-Rendering and 2D-Slice with lamellar eutectic structure

**ELECTRONICS**
CPU - SEM-Image, EDX-Image and extracted slice of one circuit layer

**SPECIFICATIONS**

**CT - MODE**
- Field Of View: Ø 49 - 3414 µm
- Geometric Mag.: 20x - 1400x
- Voxelsampling: 39 - 2.750 nm
- Spatial Resolution: up to 60 nm
- Reconstruction: TV-SART, Phase-Contrast

**EDS - MODE**
- Resolution: < MnKα 131 eV
- Detector: cooled SSD
- Active Area: 30 mm²

**SEM - MODE**
- Resolution: < 0.7 nm
- Probe current: max. 500 nA
- Detector: UED + LED
- Electron gun: In-lens Schottky Plus field emission gun

**DIGITAL RADIOGRAPHY - MODE**
- Voltage: max. 30 kV
- Current: max. 500 nA
- Magnification: 20x - 5500x
- No. of Pixel: max. 1280 x 1280
- Pixel size: 55 µm

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