

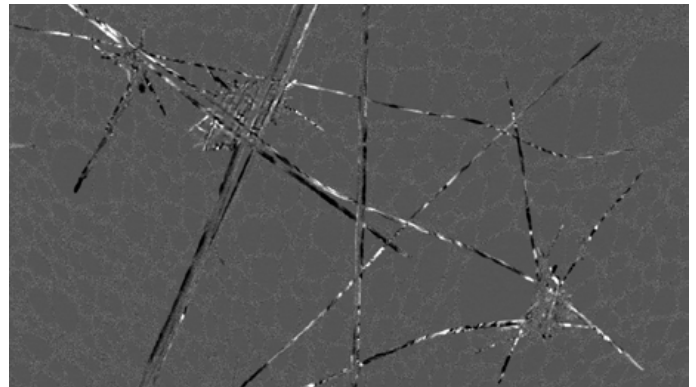
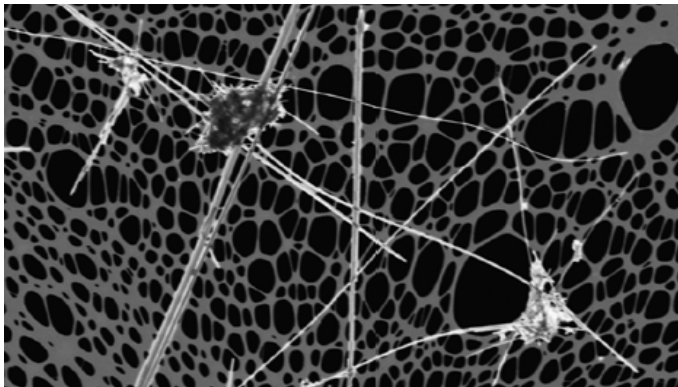
Increased image quality thanks to higher resolution

ZEISS aSTEM Detector

Add transmitted electron imaging capability to your FE-SEM or Crossbeam system. Get additional information out of your ultra-thin biological or solid-state specimens without the need to use a dedicated Transmission Electron Microscope.

Enjoy flexibility and versatility: Switch between conventional scanning and high-spatial-resolution transmission imaging mode and benefit from various contrast mechanisms in transmission imaging, thanks to optimized diode geometry and segmentation.

Larger throughput and reduced sample damage are key factors to reduce analysis costs and to ensure information integrity.



Dark-Field image of asbestos. On the left Oriented Dark-Field (ODF) image captured with the ZEISS aSTEM 4-Channel Detector. Thanks to the symmetric design of the DF detector sectors, the ODF image contains real information about bending and lattice defects within each fiber (right).

Highlights

Improved image quality

Enhance your image results with lower kV usage, prevent contamination risk and beam damage through the additional 4-Channel Quad-Mode feature

Ease of use

Save time with easy definition and recall of imaging modes.
Fully software-controlled and automated to increase your productivity

Higher productivity and versatility

Benefit from faster image acquisition in bright field mode. The improved detector design also allows an improved adaption to the scattering of electrons

Upgrade your ZEISS microscope

Upgrade your ZEISS microscope with the aSTEM Detector option and benefit from increased image quality thanks to higher resolution.

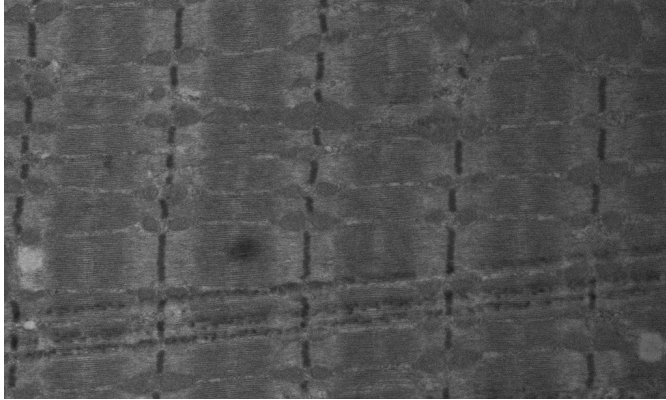
As technical requirements may apply on some systems, please contact us to learn more about the aSTEM Detector and how your processes will benefit from an upgrade: microscopy@zeiss.com



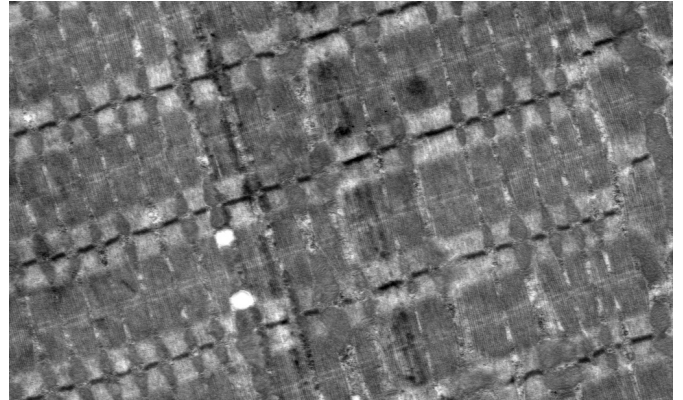
Seeing beyond

ZEISS aSTEM Detector

Higher resolution



Heart muscle sample imaged with STEM Detector at 20 kV.



Heart muscle sample imaged with the ZEISS aSTEM Detector at 20 kV.

Maximum imaging flexibility with aSTEM 4-Channel

Bright-Field (BF) Detector

The Bright-Field is coplanar with the DF/HAADF detector segments and occupies the central disc of the aSTEM 4-Channel. Its size is designed to match the angular aperture of the BF signal.

Dark-Field (DF) Detector

The opposites of the four sections are connected: this reflects the point symmetry of diffraction patterns and enables "Orientated Dark-Field" (ODF) imaging.

Annular Dark-Field (ADF) Detector

Depending on sample and accelerating voltage it can be used solely, or combined with the DF detector to enhance the diffraction contrast signal intensity.

High Angle Annular Dark-Field (HAADF) Detector

The HAADF is dedicated to collect the incoherent scattering amplitude without interference from diffraction phenomena and to increase the Z / mass-thickness contrast.

Availability

- Crossbeam series
- GeminiSEM series
- MERLIN series
- AURIGA series
- ULTRA series
- SUPRA series
- NEON series
- 15xx series



microscopy@zeiss.com
www.zeiss.com/microscopy