

# TESCAN Products

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## VEGA3



MEB W

## MIRA3



MEB FEG analytic

## MAIA3



MEB FEG with immersion lens (ultra-high resolution for low-kV)

## LYRA3



DualBeam :  
FEG + FIB (gallium)

## FERA3



DualBeam :  
FEG + FIB (Plasma)

## GAIA3



DualBeam :  
FEG with immersion  
lens + FIB (Gallium)

## TIMA3

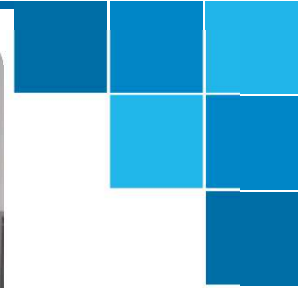
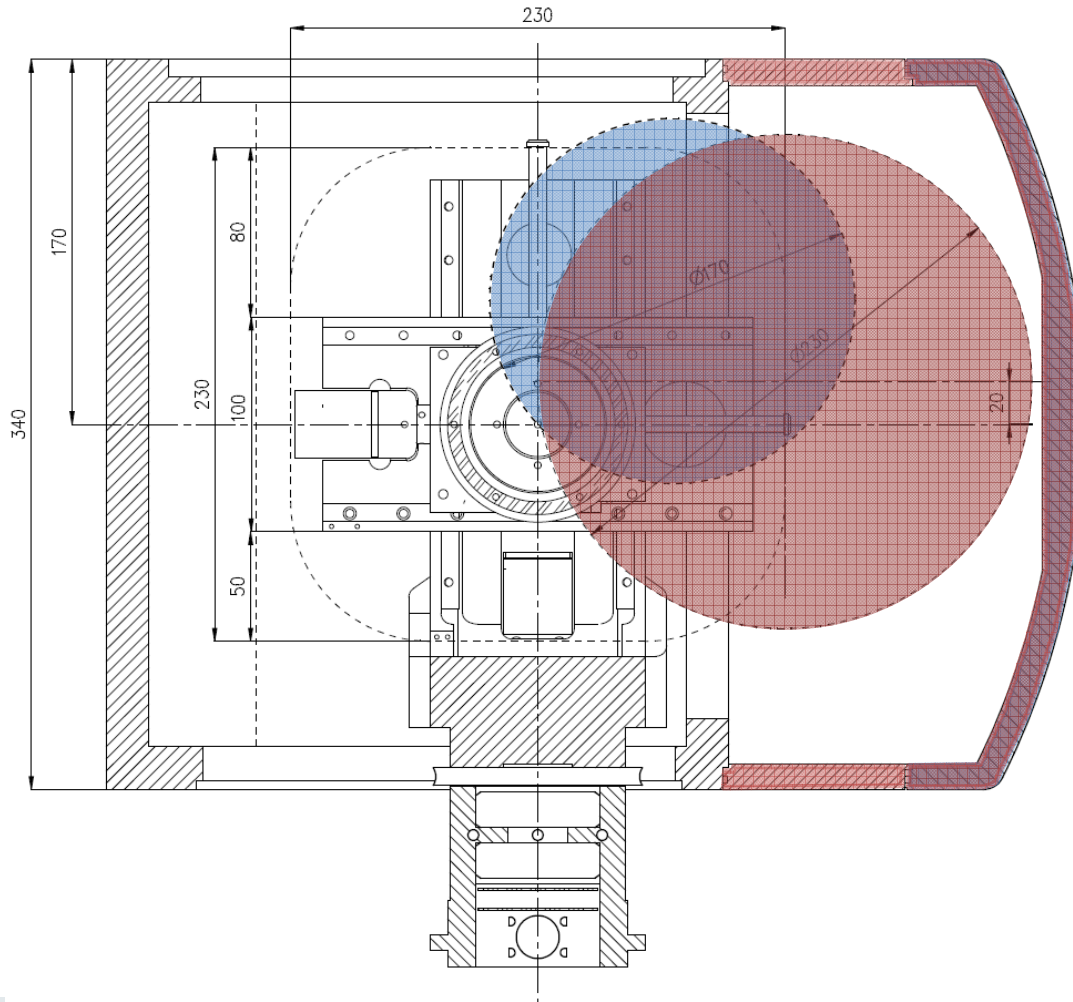


Tescan Integrated  
Mineralogy Analyzer

## Extended chambers

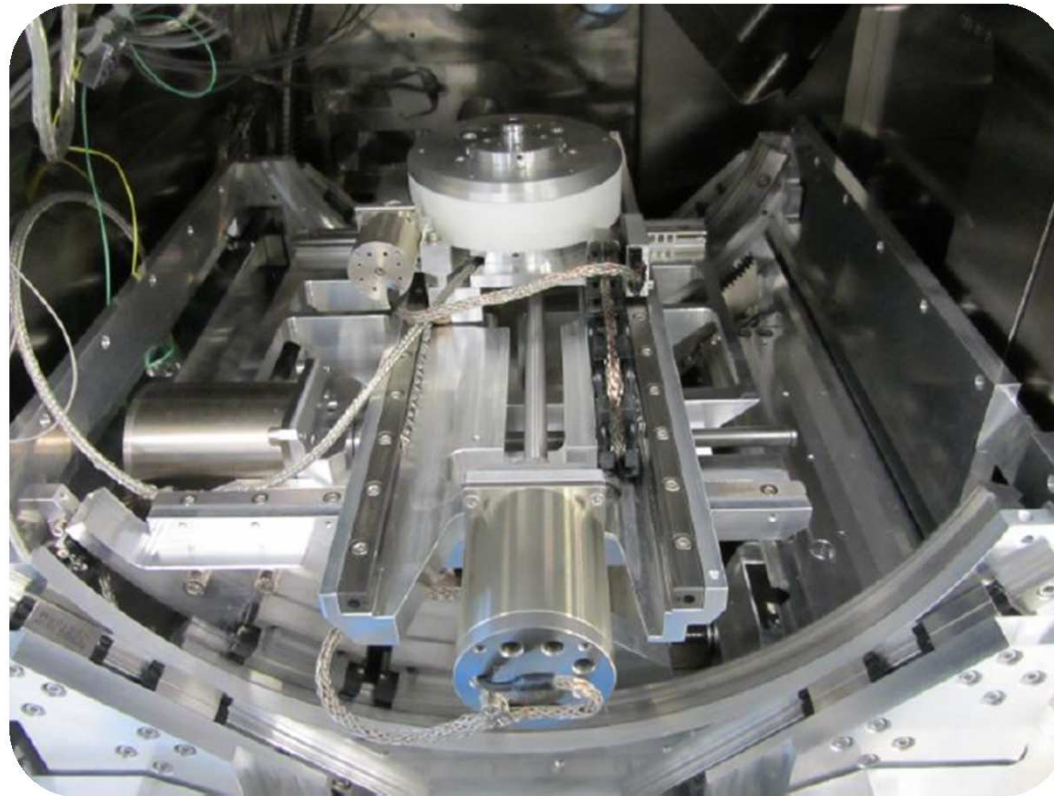
# Extended Chambers – MIRA XM

- Observation of samples up to  $\varnothing 230$  mm
- Modified Y range (-120 mm to +10 mm)



## Extended Chambers – MIRA GM

- Modifications enable 6", 8" and 12" wafer inspection
- Cradle type manipulator is used
- Only TESCAN is able to observe 12" wafer with SEM



**Fig.** Specimen stage inside the GM chamber

# TESCAN Software Modules

## Standard Software Modules

- Analysis & Measurement
- Hardness
- Histogram
- Image Processing
- Live Video
- Measurement
- Multi Image Calibrator
- Object Area
- Switch-Off Timer
- Tolerance
- Variable EDS
- X-Positioner
- 3D Scanning

## Optional Software Modules

- AutoSlicer
- **Cell Counter**
- Coral
- DrawBeam
- EasyEDX
- Image Snapper
- Input Director
- Nanomanipulator Control
- Particles Basic/Advanced
- Sample Observer
- System Examiner
- TESCAN Trace GSR
- 3D Metrology
- 3D Tomography
- **Synopsys Client**



# Cell Counter

- Easy navigation across periodical structures for finding predefined „cells“
- Allows a user to find out desired point inside large array of structures
- Very suitable for semiconductor circuits





- Optional extension for the X-Positioner module for correlative microscopy, CAD navigation in semiconductor failure analysis with interface to Synopsys Camelot software and displaying the overlay over the live SEM or FIB image
- Application: Navigation for circuit edit. CAD layout is displayed over the FIB image and inside the DrawBeam lithography software

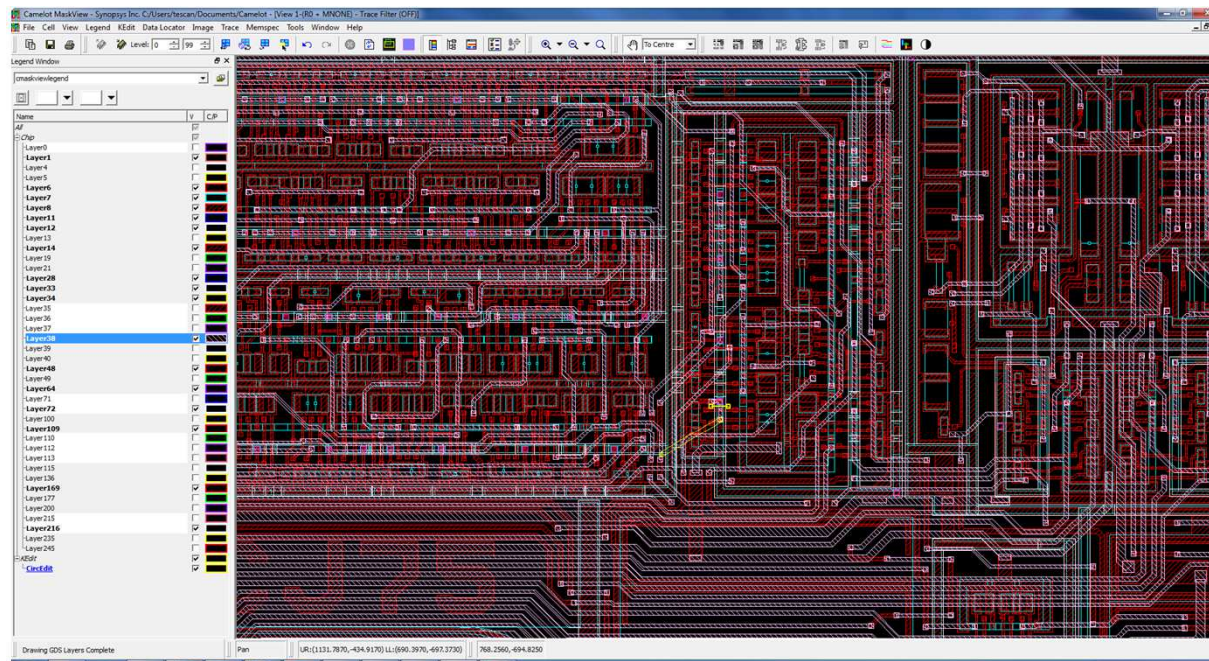


Fig. Synopsys Camelot™ software interface

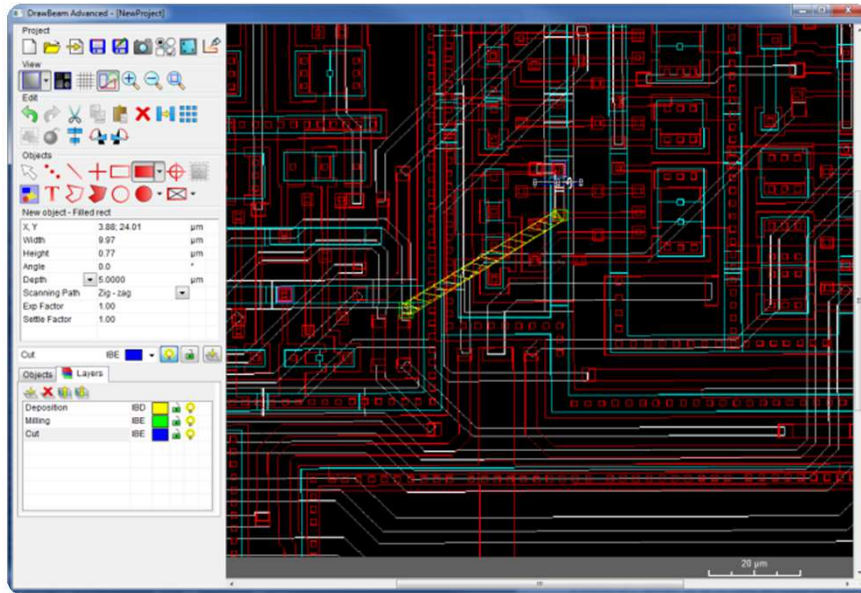
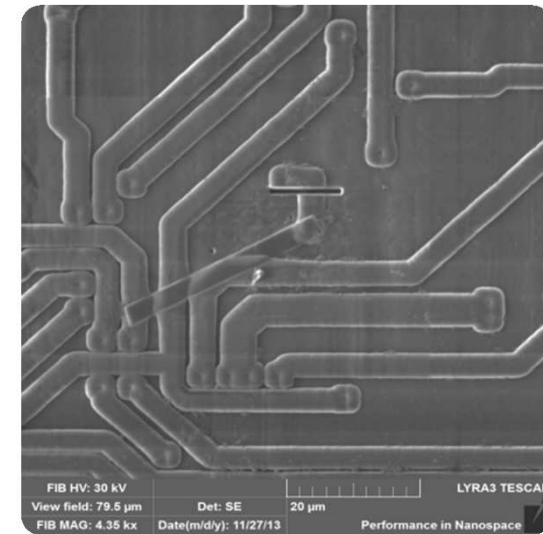
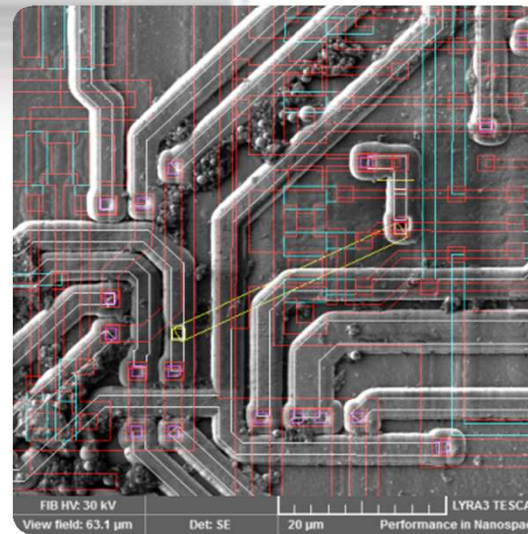


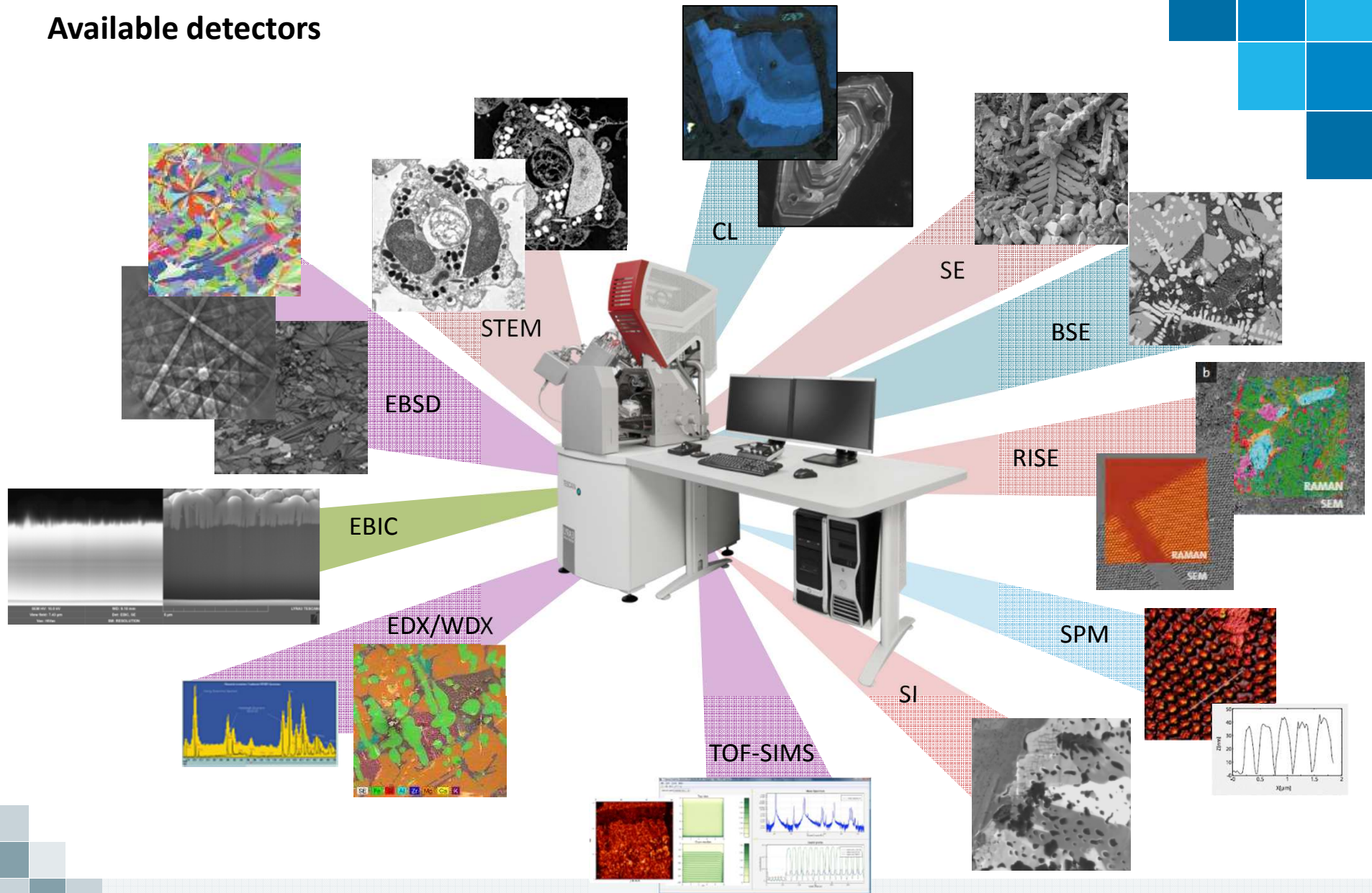
Fig. CAD Layout in the DrawBeam software

Fig. Circuit Edit – left, Overlay of the design data with live FIB image. Right - Finished circuit edit.

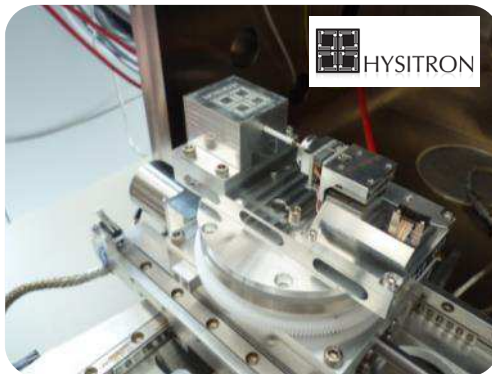


## Available Detectors & Accessories

### Available detectors



## Available accessories



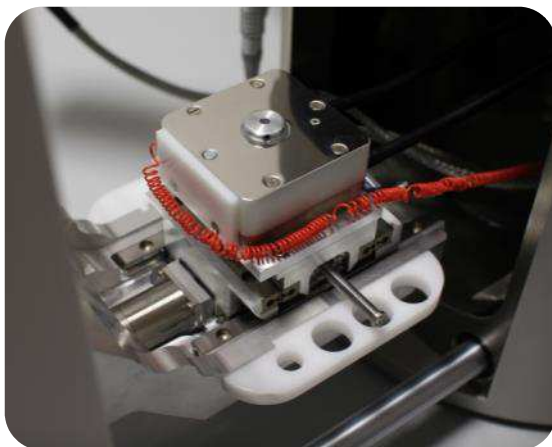
**Nanoindenter**



**CryoSEM**



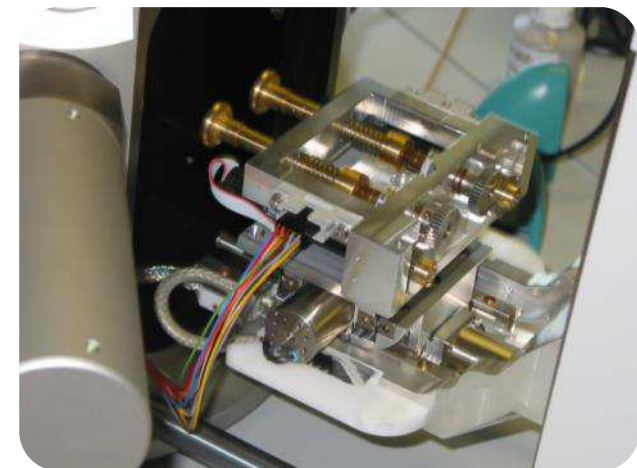
**Load Lock**



**Cooling stage**

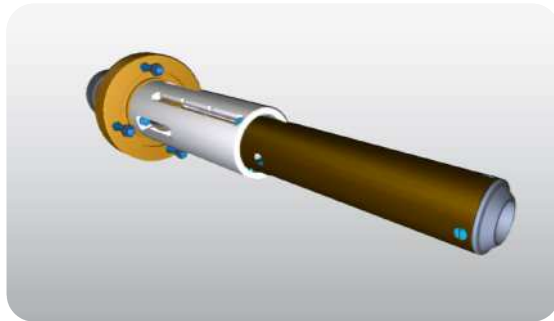


**Tensile stage**



**Bullet comparison stage**

## Available accessories



**Flood gun**



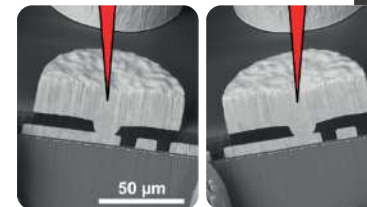
**TESCAN nanomanipulator**



**Load Lock**



**Decontaminator**



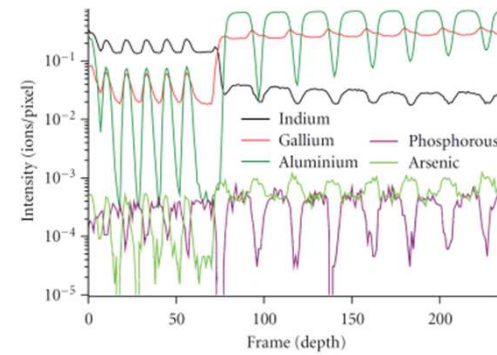
**Rocking stage**

## Available accessories

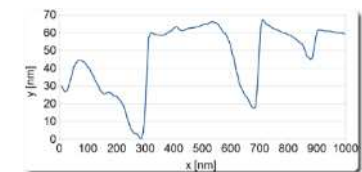
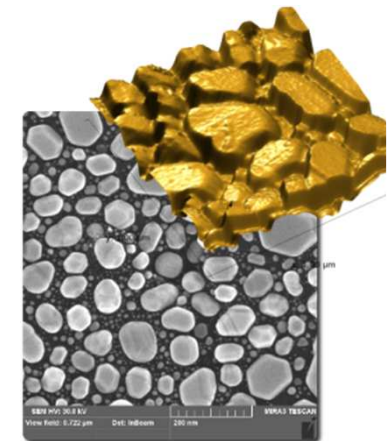
### TOF-SIMS



**TOFWERK**  
Time-of-Flight Mass Spectrometry



### AFM SPECS™



### Platine interférométrique - Raith LIS

