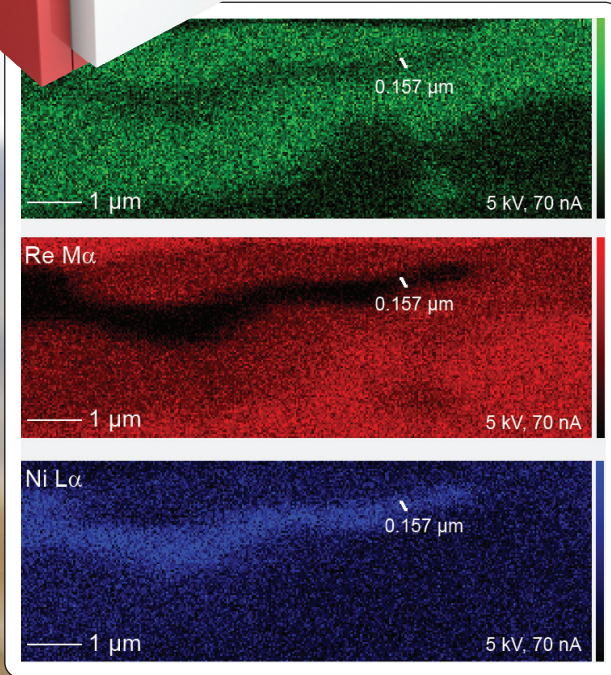


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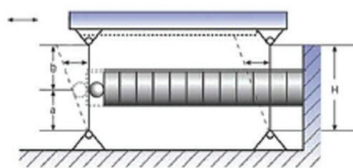
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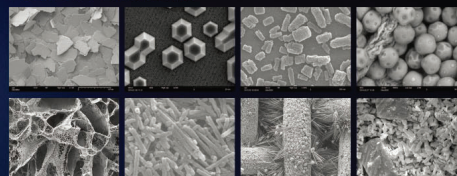
NEW

• A Type | SE Detector & High Vacuum System • B Type | A + BSE Detector & Low Vacuum System

SNE-4500M Plus

- Implemented 150,000X of the maximum magnification (Resolving power : 5nm)
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- Recipe Function : With location memory and analysis condition function

SEM APPLICATIONS



PERFORMANCE

A type	• Magnification 150,000x • Resolution : 5nm • Detector SE • Vacuum High • Stage X, Y, Z, T, R : Fully Motorized
B type	• Magnification 150,000x • Resolution : 5nm • Detector SE/BSE • Vacuum High/Low • Stage X, Y, Z, T, R : Fully Motorized

SPECIFICATIONS

Stage Traverse	X, Y : 40mm, R : 360°, Z : 0~45mm, T: 0~35°
Max. Sample Size	80mm(D) / 50mm(H)
CCD Camera	Top-View Camera
O.L Aperture Type	30, 50, 50, 100µm (Variable Type)
Electron Beam Source	Pre-centered Tungsten Filament Cartridge
Acceleration Voltage	1kV ~ 30kV(1/ 5/ 10/ 15/ 20/ 30)- 6Step
Image Format	BMP, JPEG, PNG, TIFF
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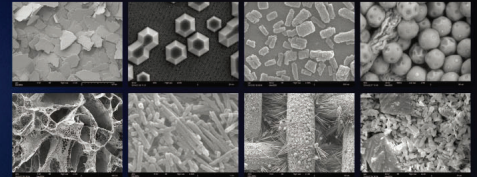
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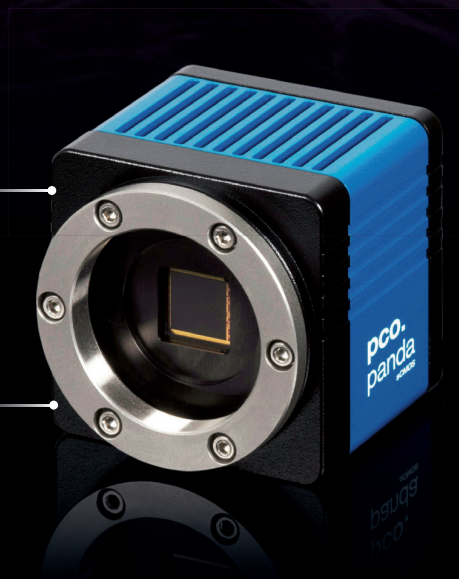
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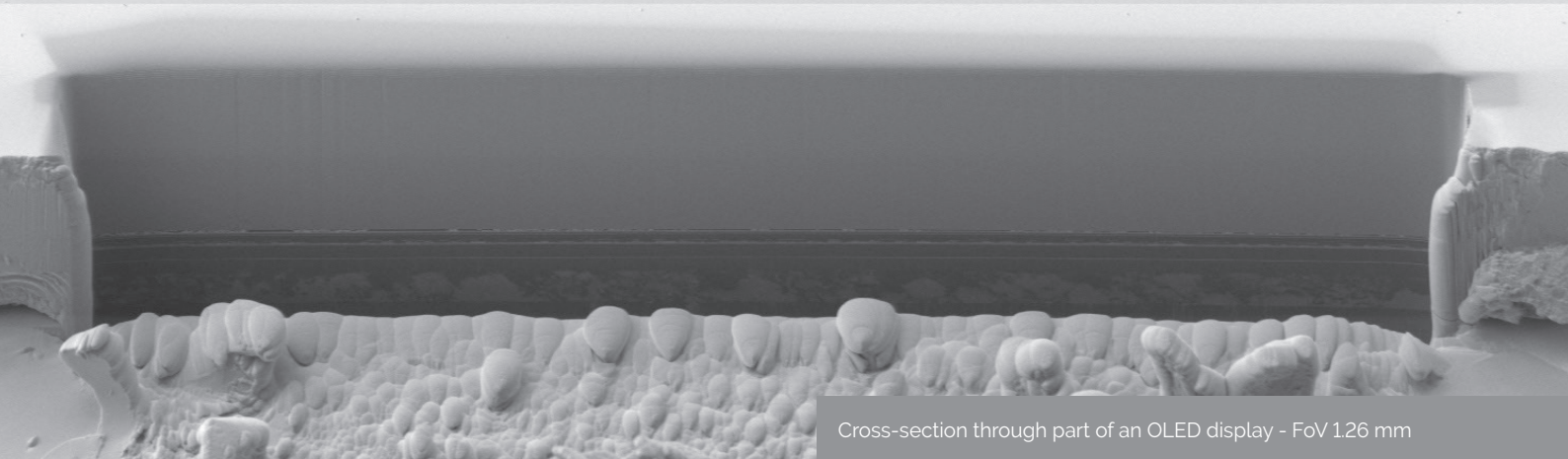
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Sample Preparation of Nanocomposites and Nanomaterials by *Ultramicrotomy*

a Powerful Alternative to FIB

Join us at the **EMS Microscopy Academy** and learn the latest techniques to reveal internal structures of composites and polymers being investigated with transmission electron microscopy (TEM) and scanning transmission electron microscopy (STEM).

Sample preparation workflow will be illustrated using the Leica EM UC7 Ultramicrotome, its EM FC7 Cryochamber, and the RMC PowerTome Ultramicrotome. Differences between FIB (Focussed Ion Beam) and ultramicrotomy samples will also be covered.

Who can benefit from this alternative?

- Composite and polymer research companies - especially from the automotive and aviation industries
- Materials scientists already working with ultramicrotomy
- FIB users preparing TEM lamellas

Equipment used in this Technique...



DiATOME trimtool

Trimming of epoxy and acrylic embeddings, polymers and non-ferrous metals

DiATOME cryo

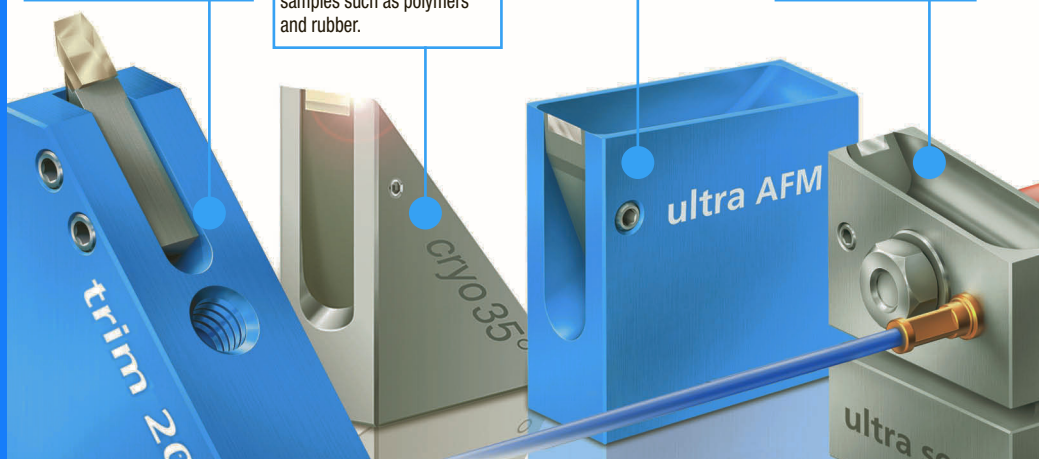
sectioning of cryo-protected specimens, frozen hydrated specimens and industrial samples such as polymers and rubber.

DiATOME ultra AFM

Surface sectioning for AFM investigation

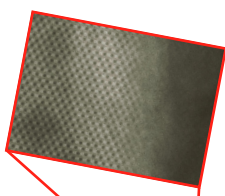
DiATOME ultra sonic

Rigid polymers such as PS, PMMA, ABS, HIPS, modified PP, etc.

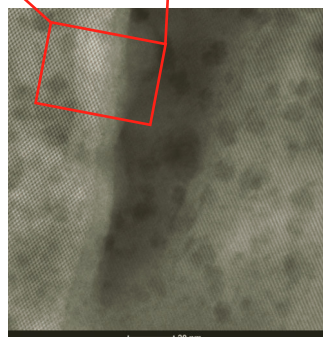


Applications...

Zeolite USY30 Crystal morphology STEM analysis

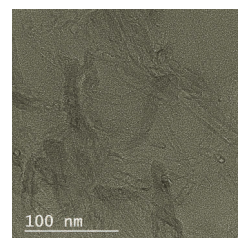


The mesopores (2-50 nm) and the crystalline micro-pores (0.7 nm) are clearly visualized.

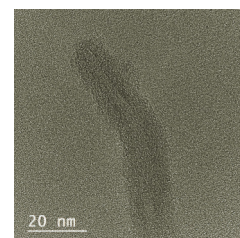


[110] Tom Willhammar, Sara Bals, EMAT Antwerpen

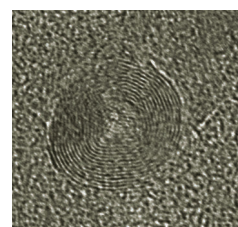
Epoxy loaded with amino-functionalized CNTs TEM analysis



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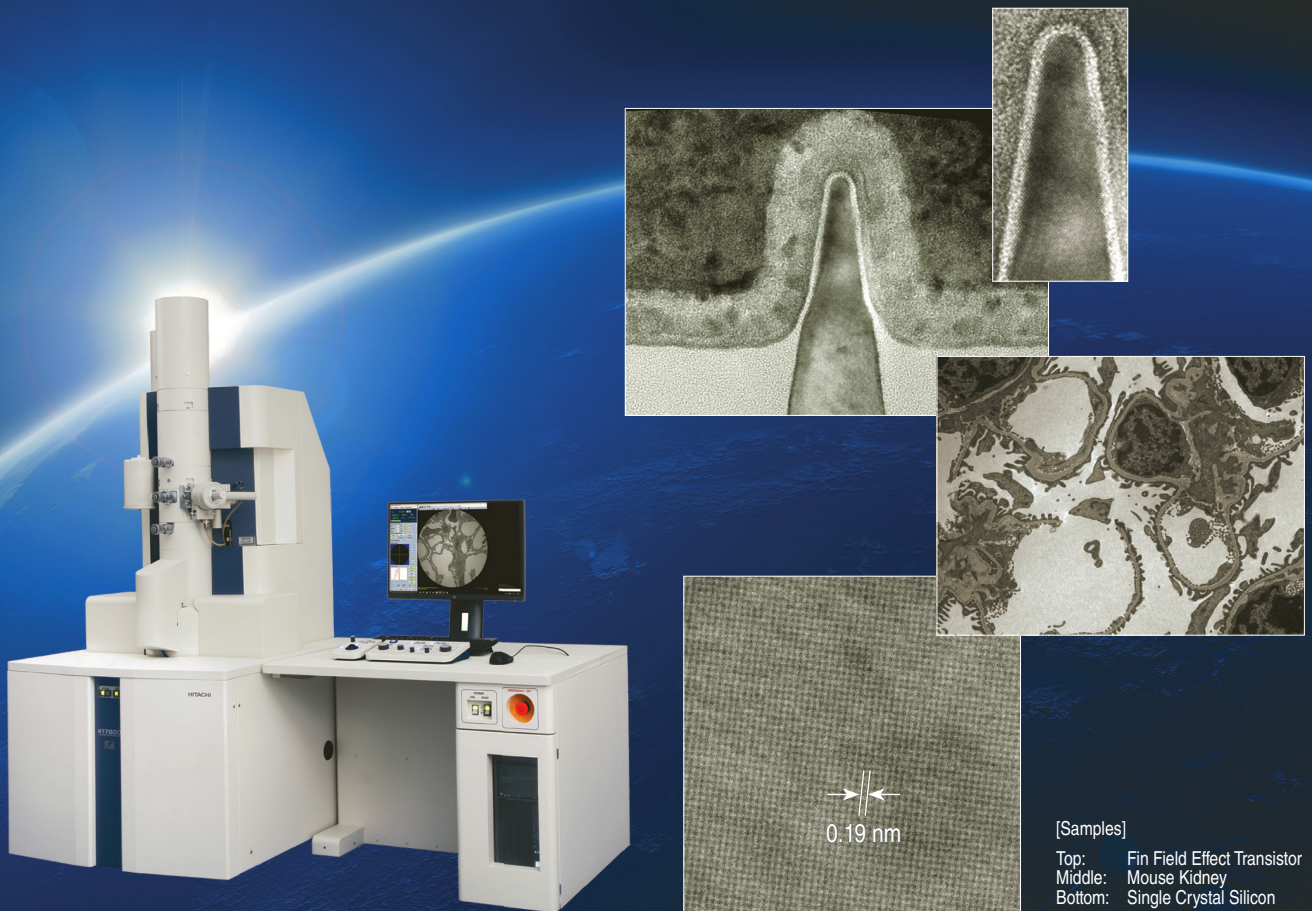
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