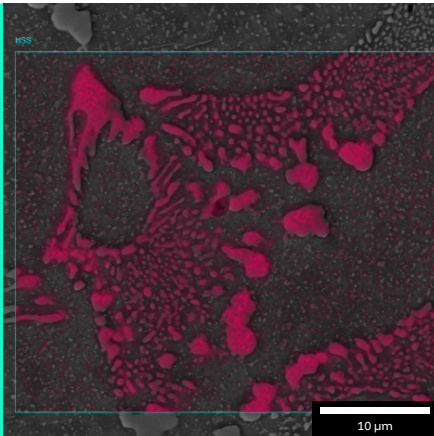


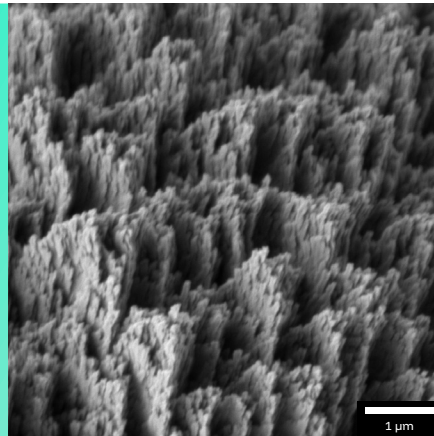
Tescan MIRA

for Material Science

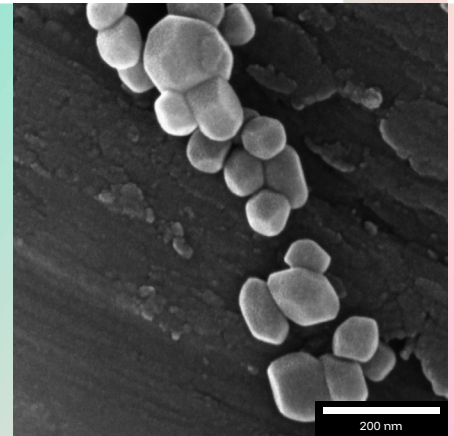
High-Resolution Analytical SEM for routine materials characterization, research and quality control applications at the sub-micron scale



↑ EDS map of Mo precipitates in HSS steel captured with Essence™ EDS and analyzed in the SEM live window



↑ Contamination on glass surface imaged at 1.5 keV using the chamber mounted SE detector (uncoated specimen)



↑ TiO₂ nanoparticles imaged at 5 keV using the in-column SE detector (metal surface coated specimen)

Key benefits:

Easily acquire compositional data and correlate directly to the SEM image using the overlay feature of Tescan's optional, fully integrated Essence™ EDS

Set-up beam parameters quickly for optimal imaging and analytical conditions with Tescan's In-Flight Beam Tracing™

Navigate effortlessly and precisely – at magnifications as low as 2x – with Tescan's unique Wide Field Optics™ mode, which eliminates the need for an additional optical camera

Move samples confidently and avoid collisions using Tescan's unique live 3D collision model which replicates the size and geometry of samples and detectors within the chamber interior

Customize the GUI to match a user's experience level and application for intuitive operation of Tescan's Essence™ microscope control software

Explore beam sensitive and charging samples quickly and easily using MIRA's standard SingleVac function

Reveal the finest topographic details from insulating, beam sensitive and outgassing samples in low vacuum by taking

advantage of optional MultiVac which features the gaseous secondary electron detector (GSD) and additional water vapor atmosphere

Enhance the resolving power of MIRA SEM with optional in-column SE and BSE detectors combined with Tescan's Beam Deceleration Technology

Expand your analytical potential by configuring MIRA with your choice from a wide selection of optional, fully integrated detectors, such as CL, water cooled BSE or RAMAN spectrometer

Maximize your analytical throughput by using high electron beam currents up to 400 nA

Free yourself from thinking about sample dimensions and number with MIRA's GM chamber which features 130 × 130 mm stage movement and enough space to accommodate samples with dimensions of 300 × 300 × 100 mm³

Leverage Tescan MIRA's analytical potential by having a high number of empty chamber ports available for future detector upgrades