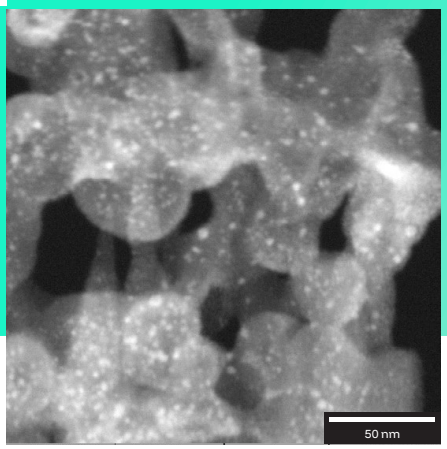
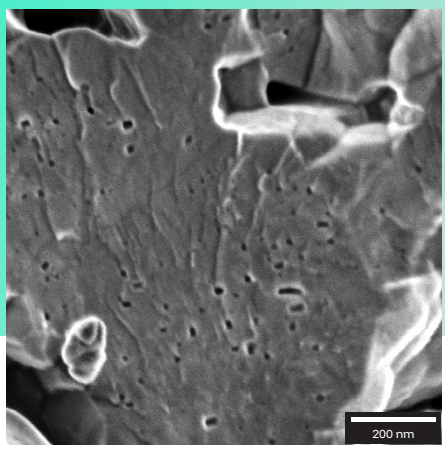
Tescan MAGNA

for Material Science

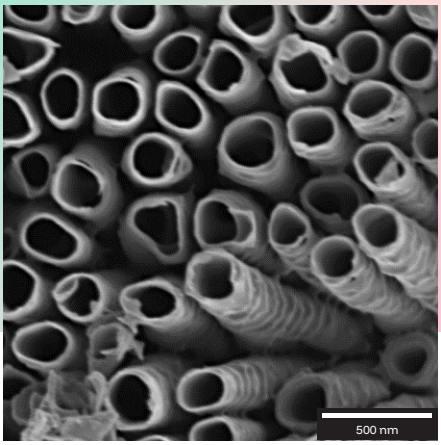
UHR SEM with TriLens™ immersion optics for the ultimate characterization of nanomaterials



STEM image (inverted grayscale) of a carbon catalyst (size 20–150 nm) doped with Pt nanoparticles of size 1–5 nm



Nanopores with size <10 nm in Li-rich powder imaged at 1 keV with BDM



TiO_2 nanotubes imaged with In-column SEs

Key benefits

Achieve ultra-high resolution imaging with maximum topographic information from non-magnetic materials using TESCAN´s unique Trilens™ optics design

Set-up beam parameters quickly for optimal imaging and analytical conditions using TESCAN´s In-Flight Beam Tracing™

Reveal potentially hidden features using selective energy filtering of In-column BSEs

Maximize resolving power at low accelerating energies by combining MAGNA´s TriGlav™ immersion technology with Beam Deceleration Technology

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

Characterize materials of all kinds – magnetic, non-magnetic and charging – and perform most routine analytical work using Magna ś standard field-free Analytical mode and optional Low Vacuum Mode

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