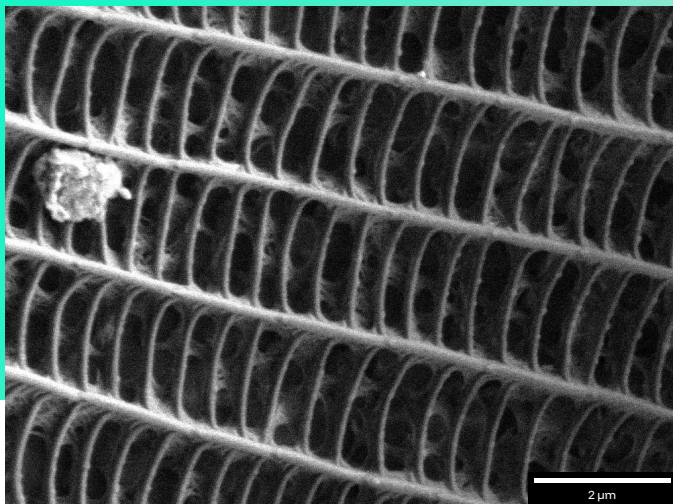


# Tescan MultiVac

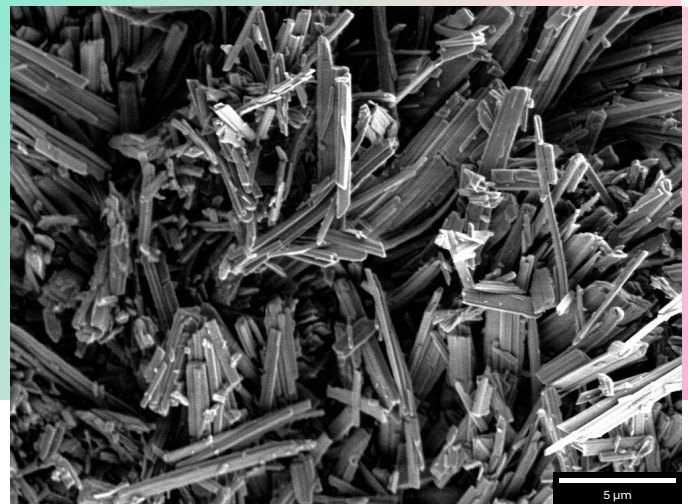
## Reveal the finest topographic details from insulating, beam sensitive and outgassing samples, in low vacuum and without conductive surface coating

Make imaging of insulating samples easy and fast — at any beam condition — with Tescan's MultiVac. Tescan MultiVac supports imaging of insulating samples by enabling low vacuum and extended variable pressure on Tescan SEMs. MultiVac operates in both  $N_2$  and  $H_2O$  atmospheres, and MultiVac's extended variable pressure (up to 500 Pa) mode allows controlled fine-tuning of vacuum to achieve the best charge compensation for any insulating sample. MultiVac also includes a gaseous secondary electron detector (GSD) which, when used in  $H_2O$  atmosphere, enables high resolution imaging at low keV and low beam currents for topography characterization

on beam sensitive samples. The ability to characterize a sample's topography at low keV is essential, because lower beam penetration depth will enhance topographical contrast and reveal surface details — details which would not be evident at higher beam energies due to the electron transparency of charging samples. MultiVac seamlessly integrates with Tescan SEMs and is controlled directly from Tescan's Essence™ software, making high quality characterization of insulating, beam sensitive and outgassing samples effortless and accessible to all users.



✦ Moth wing captured at 2 keV using GSD detector and MultiVac on Tescan MIRA SEM



✦ Erythrite ( $Co_3(AsO_4)_2 \cdot 8H_2O$ ), a secondary hydrated cobalt arsenate mineral, captured at 3 keV using GSD detector and MultiVac on Tescan MIRA SEM

## Key benefits

**Capture charge-free images of any insulating sample with the finest detail — without metal surface coating** — by taking advantage of extended and variable pressure range (up to 500 Pa).

**Obtain detailed topographic (SE) information from charging samples at low accelerating voltages** using the gaseous secondary electron detector (GSD) in water vapor atmosphere.

**Characterize topography of unprepared and outgassing samples** with the GSD, which delivers high quality results in low vacuum conditions

**Acquire both detailed topographic (SE) and material contrast (BSE) information from your sample, at low landing energies and in low vacuum**, by combining the GSD with Tescan's own low energy BSE detector.

**Accelerate and streamline your low vacuum imaging routines for large dimension or high volumes of samples** by complementing MultiVac with Tescan's Optical Navigation and Correlation Camera mounted on a Tescan GM chamber.