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Shimadzu announces launch of two models of Scanning Electron Microscope SUPERSCAN SS-4000

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First of the Joint Brand with TESCAN Ã¢â?¬Å?Shimadzu by TESCANÃ¢â?¬Â•



Shimadzu Corporation has launched two models of the scanning electron microscope “SUPERSCAN SS-4000” within Japan. After concluding a business partnership with the TESCAN GROUP, of the Czech Republic (Czechia), a leading manufacturer of scanning electron microscopes (SEM), this is the first launch of the joint brand “Shimadzu by TESCAN.”

This series is optimised for low-acceleration and low-vacuum observation, which is effective for reducing sample pretreatment. It is an instrument that solves issues regarding operation for SEM users, such as wide-area observation without distortion, automatic beam adjustment in real time, etc.

Shimadzu provides software and manuals in Japanese, and provides total support from installation, inspection, repairs, and other after-sales services.

SEMs enable observation of surfaces at the nano-scale, and are essential instruments for research in science and technology. Due to the principle of irradiating a sample with an electron beam and detecting secondary electrons and backscattered electrons generated from the sample to observe differences in surface morphology and composition, it is difficult to observe samples that are easily charged (non-conductive samples).

However, the SUPERSCAN SS-4000 enables observation at low accelerations that reduces charging, enabling acquisition of images with optimum resolution and contrast for non-conductive samples such as ceramics and plastics. Also, deviations in image brightness, focus, and observation center position caused by changes in beam characteristics due to changes in voltage and current during sample observation are automatically adjusted, contributing to improved work efficiency. This series is scalable to support about 20 types of analysis options, such as element analysis, electron backscatter diffraction, compound analysis, and speciation analysis, and achieves high operability with the dedicated software “Essense."