

The TM4000 Series A New Type of Tabletop Microscope

Scanning electron microscopes (SEMs)—instruments for observing the fine structure of sample surfaces—are widely used in all fields of industry, particularly in biotechnology and material sciences. The TM4000 series of tabletop microscopes is a low-vacuum SEM with a thermal electron gun that retains the key strengths of their predecessors in the TM3000 series while boasting smaller instrument footprints and improved ease of use, making SEM observations easy even for users who have never before worked with an electron microscope. The architecture of the TM4000 series reflects the vast amount of feedback we have received from tabletop-microscope users in the fields of manufacturing and quality control, and the design of the instruments reflects a central underlying conceptual theme: helping users streamline and facilitate routine operations. New features include (a) SEM-MAP capability, in which images captured by a camera mounted inside an evacuated sample chamber are used for sample navigation, allowing users to move to desired observation regions with just a single click of the mouse, and (b) report-preparation software (a standard feature available on all instruments in the series) allowing users to generate reports of observed images following an observation session. Moreover, similar to the TM3000 series, all instruments in the TM4000 series are equipped with a semiconductor backscattered-electron detector as a standard feature, while the TM4000 PLUS model further boasts a high-sensitivity low-vacuum secondary-electron detector (UVD). The TM4000 series expands the universe of tabletop microscopy, empowering more users than ever before to unleash the creativity of their innovations.

