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Shimadzu partners with Tescan Group to launch Scanning Electron Microscopes in Japan

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Tescan's scanning electron microscopes will be added to Shimadzu's core analytical measurement product lineup

Shimadzu Corporation has concluded a business partnership agreement with Tescan Group, a leading manufacturer of scanning electron microscopes (SEM) in the Czech Republic. Tescan's SEM will be added to Shimadzu's core analytical measurement product lineup, and the product will be launched in Japan this fall, creating synergies with existing analytical and measurement instruments.

Tescan products are renowned for their robustness and ease of operation, with more than 4,000 units sold in 80 countries. The Japanese SEM market was worth 17 billion yen in fiscal 2022 and has grown by more than 10% in recent years.

Although commonly used optical microscopes cannot observe objects smaller than the wavelength of light, SEM enables high-resolution surface observation in nanometers (1 nm = 1/1 billion m) by using electron beams with a wavelength shorter than that of light. SEM is an essential and basic observation and analysis device for all kinds of scientific and technological research.

However, due to the principle of "A sample is irradiated with an electron beam and electrons generated from the sample are detected to observe differences in the morphology and composition of the sample surface," it is difficult to observe non-conductive samples that are easily charged. Tescan's SEM always provides optimal resolution and contrast, regardless of the conductivity of the sample.

Surface observation analysis using Tescan products and component analysis using Shimadzu's analytical and measuring instruments play complementary roles, and by combining them, a highly reliable and consistent analysis system can be constructed. Through its business alliance with Tescan, Shimadzu Corporation will provide high-value-added solutions and research platforms for customers engaged in research and development in areas such as structural biology, nanotechnology,

energy materials, and metal and steel materials.