

Thermo Fisher launches new Surface Analysis System for evolving medical implants

23 September 2025 | News

A revolutionary advancement in X-ray photoelectron spectroscopy (XPS) depth profiling



Thermo Fisher Scientific, the world leader in serving science, has introduced the Thermo Scientific™ Hypulse™ Surface Analysis System. This innovative surface analysis instrument represents a leap forward in accurate X-ray photoelectron spectroscopy (XPS) depth-profiling, which is critical for materials scientists around the world.

The Hypulse Surface Analysis System will enable the development of surfaces across industries to improve society — from advancing energy storage, to evolving medical implants, to enhancing fire protection.

This new generation of XPS depth-profiling will enable researchers to extract more insights from surface samples and create better materials. In the case of medical implants, for example, these insights can pave the way for research that will help upgrade coatings for better biocompatibility, longevity and infection prevention.

What sets the Thermo Scientific Hypulse Surface Analysis System apart is that it is equipped with a novel material-removal method: femtosecond laser technology. This allows researchers to preserve sample accuracy, accelerate data collection and characterise more materials at greater depths.