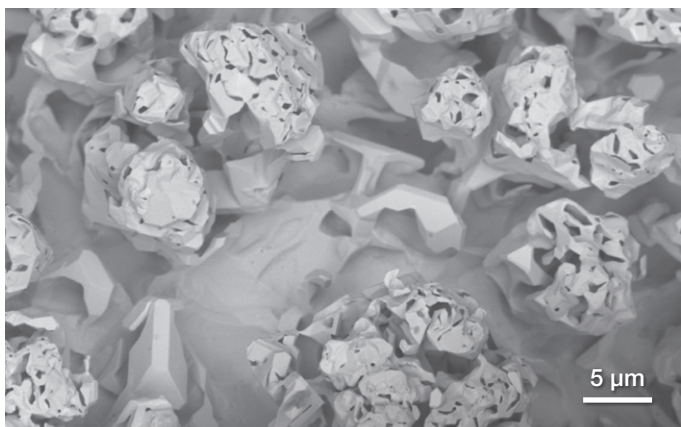


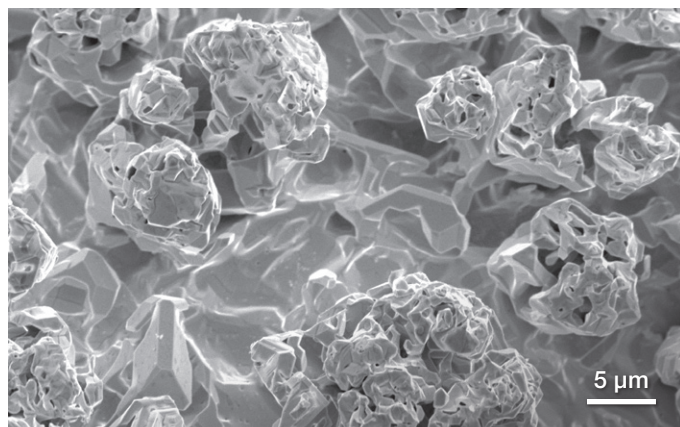
Phenom ProX G6 Desktop SEM

Desktop SEM with EDS capability for robust, effortless, and versatile elemental analysis





Platinum-coated metal grid (BSD).



Platinum-coated metal grid (SED).

The sixth generation of Thermo Scientific Phenom ProX G6 Desktop SEM fills the gap between light microscopy and floor-model SEM analysis, expanding the capabilities of research facilities. It offers fast, high-resolution imaging in addition to an integrated energy dispersive spectroscopy (EDS) detector for robust, easy-to-use, rapid elemental analysis.

Expand your research facility's capabilities

Fast and easy to use, the Thermo Scientific™ Phenom™ ProX G6 Desktop SEM can be used to relieve the burden of routine analysis for common samples from floor-model SEM instruments. Instrument configuration and the sample loading mechanism ensure quick imaging with minimal time spent tuning between experiments.

Facility users of any experience level can quickly begin producing high-quality results with the Phenom ProX G6 Desktop SEM. Its long-lifetime CeB₆ source offers high brightness while requiring low maintenance. Additionally, the Phenom ProX G6 Desktop SEM's high stability and small form factor allow it to be used in practically any lab environment because it does not require specialized infrastructure or expert oversight.

Key Benefits

Expand research capabilities—Offload work from your floor-model SEMs

Fully integrated EDS detector—High-resolution imaging at same working distance as EDS analysis for faster workflow

Easy to learn, easy to use—Users of any experience level can quickly start producing results

Fast, high-resolution imaging—Long-lasting, high-brightness CeB₆ electron source

No specialized infrastructure—High stability and small form factor allow it to be used in practically any lab environment

Imaging specifications

Imaging modes

Light optical	Magnification range: 20–134x
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Electron optical	Magnification range: 160–350,000x
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Illumination

Light optical	Bright field / dark field modes
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Electron optical	Long lifetime thermionic source (CeB ₆)
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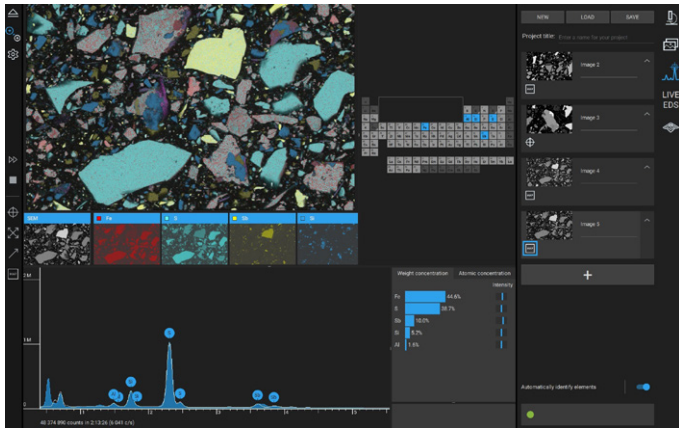
Acceleration voltages	<ul style="list-style-type: none"> • Default: 5 kV, 10 kV and 15 kV • Advanced mode: adjustable range between 4.8 kV and 20.5 kV imaging and analysis mode
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Resolution	<ul style="list-style-type: none"> • ≤6 nm (SED) • ≤8 nm (BSD)
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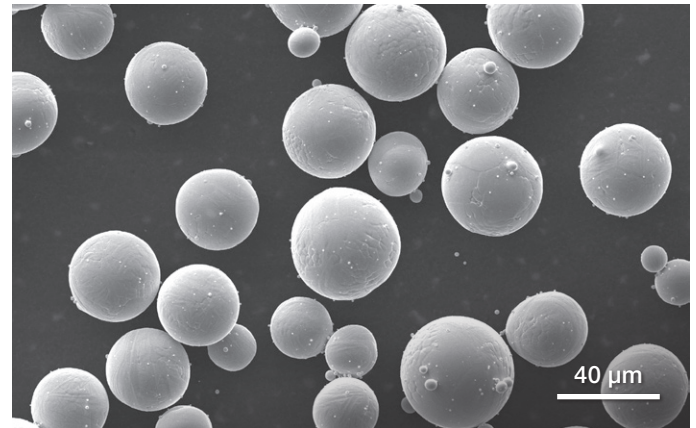
Detector

Standard	<ul style="list-style-type: none"> • Energy dispersive spectroscopy detector • Backscattered electron detector
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Optional	Secondary electron detector (enabled for live mixing with BSE)
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Elemental Mapping of a mineral sample..



SED image of Titanium particles.

Secondary electron detector

The standard detector in the Phenom ProX G6 Desktop SEM is a four-segment backscattered electron detector (BSD) that yields sharp images and provides topographical contrast information.

A secondary electron detector (SED) is optionally available. The SED collects low-energy electrons from the top surface layer of the sample. It is therefore the perfect choice to reveal detailed sample surface information. The SED can be of great use for applications where topography and morphology are important. This is often the case when studying microstructures, nanostructures or particles. Once installed, the Phenom ProX G6 offers live mixing of backscattered and secondary electrons images to combine compositional and topographic data.

Long-life CeB₆ source

The CeB₆ (cerium-hexaboride) source has several advantages: first, the high brightness it provides compared to tungsten makes it much easier to obtain high-quality images with many details; second, the lifetime of the source is very long, and maintenance can be scheduled, enabling you to obtain the results you are looking for, even after a long (automated) run. The lifetime is extended as much as possible via our intelligent software; the source is hibernated when the Phenom ProX G6 Desktop SEM is not in use. In case the source needs to be replaced, this can be done on-site.

Element Mapping and Line Scan specifications*

Element Mapping

Full spectrum mapping and line scan, makes post processing possible including offline element selection and re-quantification

Element selection	User-specified individual element maps, plus BSD and mix image
Selected area	Any size, rectangular
Mapping resolution range	32x32-960x960 pixels
Pixel dwell time range	1-500 ms

Line Scan

Line Scan resolution range	16-512 pixels
Points dwell time range	10-500 ms
Element selection	Auto ID or manual

Reporting

Docx format

SED specifications

Detector type	Everhart Thornley
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* Optional

Distributore per l'Italia:



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