PAUL SCHERRER INSTITUT

PICO

Hitachi Regulus 8230

Responsible

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Description

Ultrahigh resolution Scanning Electron Microscope optimized for low primary energy to reduce radiation damage and charging. Equipped with Energy dispersive X-Ray (EDX) detector for analysis of chemical elements.

- Cold Field Emission (CFE) gun optimized for low voltage, ultra high-resolution imaging
- Resolution: @1kV 0.9nm, @15kV 0.7nm; Acceleration Voltage 0.5kV- 30kV
- Landing Voltage 0.01kV- 20kV
- Load Lock for up to 8” wafers

Detectors

- Secondary Electron detectors: Upper, Lower and Top detector
- Backscattered High Angle and Low Angle
- Deceleration Mode with negative Voltage applied to specimen
- STEM detector bright and dark field

EDX Detector:

Oxford Instruments Ultim Extreme, windowless, optimized for low energies to reduce radiation damage and higher lateral resolution.

Fast collection, real-time data processing and immeditate spectra.

Software: Oxford AZTEC

Additional equipment:

- ZoneSEM sample cleaner (Ozone cleaner from Sunyo for smooth cleaning of surfaces without damaging)
- Sparkle UV cleaning of the SEM chamber for reduced carbon contamination