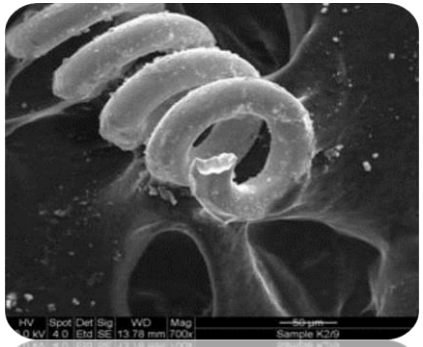
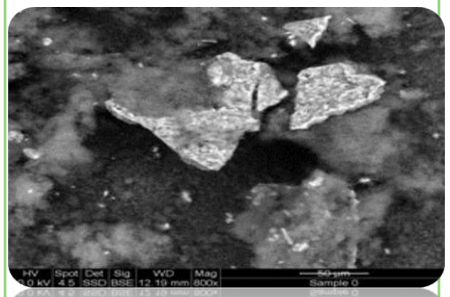
Examples of the different types of measurements and analysis that can be performed with this instrument are shown in the gallery below

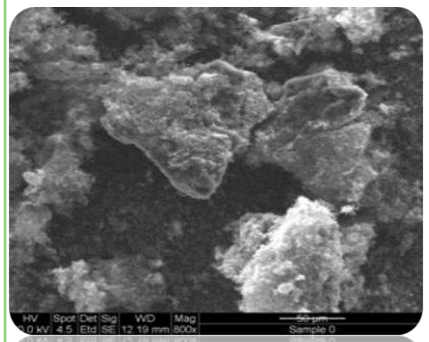


Tungsten spiral wire breakdown surface - high vacuum mode.

Bright phase on the backscattered image composed of the cobalt particles on carbon powder background.



Backscattered electrons



Secondary electrons

Clab.ksu.edu.sa
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Scanning Electron Microscope Unit
Ground Floor
Lab No.38
Building 13

جامعة الملك سعود
King Saud University

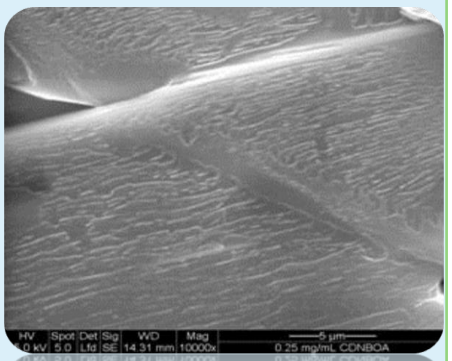
Central Laboratory
And
Prince Naif
Health Research Center

Medical Studies and
Scientific Sections

Environmental Scanning Electron Microscope

Scanning Microscope

- The Quanta 250 Environmental Scanning Electron Microscope (ESEM) produces enlarged surface images of a variety of specimens.
- Achieving magnifications of over 150 000X providing, high-resolution imaging in a digital format.
- Imaging can be performed in traditional high vacuum mode, low vacuum nitrogen atmosphere mode and a hydrated “environmental” low vacuum mode suitable for some unfixed biological samples.
- This instrument excels at permitting an exceptional magnification range when working with a wide range of accelerating voltages, and can accommodate samples with minimal specimen preparation. Detectors for collection of back scattered and secondary electrons are available.



Organic crystals - low vacuum mode (non-coated)

The Quanta has a schottky field-emission source gun and three modes of imaging and analysis

High vacuum for characterization of conductive samples low vacuum (>200 pa) for analysis of non-Conductive samples,

Environmental (ESEM) mode (>4000 pa) for studying wet organic or inorganic materials.