Scanning Electron Microscopy Analysis

Scanning electron microscopy (SEM) uses high-energy electron beam to bombard the material surface, and collect and magnify the excited information to produce images. SEM can quickly provide high-resolution and high-depth-of-field images to study the surface and near-surface structure of the materials. SEM is excellent in generating detailed surface topography images. When combined with an auxiliary Energy Dispersive X-ray Spectroscopy detector, SEM can be used to obtain the morphology, particle size distribution, semi quantitative element and so on.

STEMart provides scanning electron microscopy service for failure analysis, dimensional analysis, process characterization, reverse engineering and particle identification.

Test Capabilities

Morphology observation of ceramics, metals, powders, plastics and other samples

Micro-area morphology observation of solid surface

Composition analysis of materials

Measurement of thin coating thickness

Analysis of material fracture topography and internal structure

Shape observation and size analysis of particles or fibers

Qualitative and semi-quantitative analysis of micro-area composition on the solid surface

Surface phase analysis, inclusion identification, etc.

Analysis of welding or synthetic interface

Tin whisker observation

For more information about our scanning electron microscopy services, please contact us.