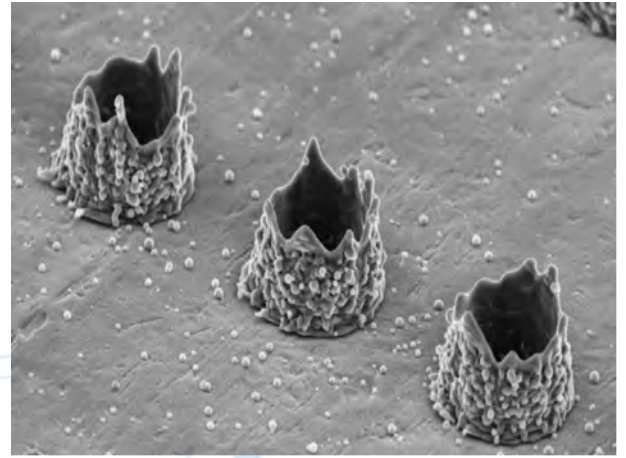
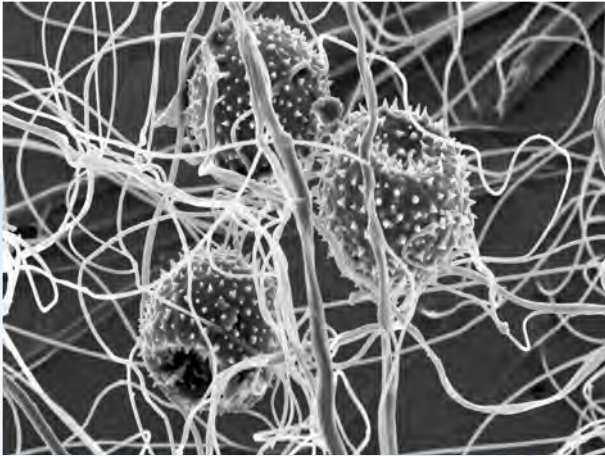


## SCANNING ELECTRON MICROSCOPE IMAGING

Scanning Electron Microscopy (SEM) is a high performance surface microscopy method which allows for high resolution images to be obtained on a wide range of samples. A focused beam of electrons sweeps across a sample surface and an image is created from the scattered electrons. The electron beam allows for the accurate imaging of features below the resolution limit of visible light. The acquired pictures retain good depth of field, resulting in excellent three dimensional images. Variations in beam parameters can be made in order to highlight variations in density in the target sample, show extremely fine surface features, and illustrate texture in sample surface coatings.



Melted Metallic Pillars with Shot Artifacts



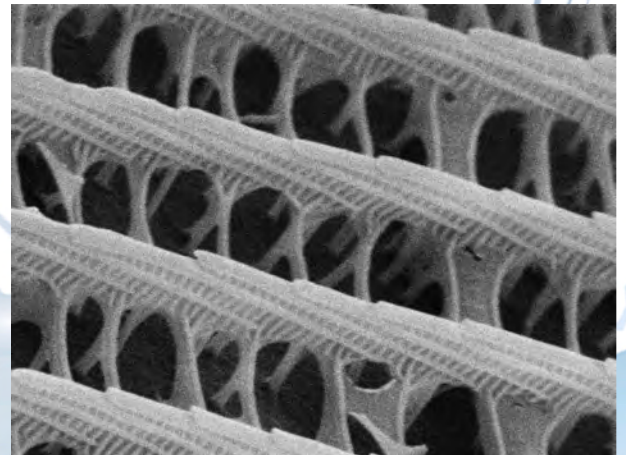
Pollen Grains Trapped in Webbing

### Advantages:

- Extremely high magnifications possible (750,000x+)
- Fine resolution of small features (5-6 nm resolution)
- Low magnification overview of large objects possible (10mm+)
- Gradations visible in even similar material layers possible at low acceleration voltage
- Preparation and examination of a wide range of materials
- Detection of materials of varying density possible with Backscatter Electron Imaging

### Application Fields:

- Materials Science
- Manufacturing
- Environmental Testing
- Semi-conductors
- Filtration Technology
- Metallurgy and Ceramics
- Paint and Surface Coatings
- Plastics
- Medical Devices and Pharmaceuticals
- Nanotechnology



Ribbed Structures on Butterfly Wing

Learn more at <http://www.MicroVisionLabs.com>