

Which SEM?

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Abstract

How do I choose the right SEM for my facility?' is one of the most difficult questions to answer for anyone who is starting to look for a new Scanning Electron Microscope.

If the requirement is for a replacement or additional instrument to add to an existing facility, it is sometimes a little easier to choose the correct type of SEM. However, even in this case, it may not be as easy as people think to make a decision.

It is important to match the SEM to the requirements of the users, and in most cases, people will initially investigate the options using instrument specifications. Although this will highlight the main differences between different types of SEM, specifications will not necessarily show what a particular type of scanning electron microscope can do on the user's specimens.

In this presentation we will show guides for both biological and materials samples, imaged using instruments from each of the main types of SEM typically available to people who are looking to purchase new machines.

We will go through the results from four primary types of scanning electron microscope; Tabletop, Tungsten, Multipurpose Field Emission, and Ultrahigh-resolution FE SEMs. We will also highlight key features, which are always of interest once an appropriate SEM has been found.

These guides will be particularly useful to those who are looking to make their first SEM purchase, as they will help to clarify what to expect from their preferred instrument.