

Versatile Solutions for Modern Analytical Instruments – TEM

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With the advancements of TEM and other electronic technologies in recent years, a wide variety of techniques have been made available to TEM users in the field of life sciences. The field of cryo-TEM in particular requires technologies to improve the contrast, resolution and 3D information available when observing samples in a vitrified state.

In this presentation, examples from the JEOL TEM range will be given with explanations of importance of the technologies available for observing low contrast and beam sensitive specimens. We will cover the application of Omega filters to improve contrast, phase plate solutions for cryo-TEM and tomography, and also discuss direct detection technology. A guide to the advantage of an Omega filter using examples to show the effect on low contrast and low dose images will be given. We will also show the advantages of phase plate technology and discuss the improvements in phase plate technology in the latest JEOL TEMs.

