

## **Quantitative Transmission Electron Microscopy with Imaging Plates**

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In this talk, we will first discuss the characteristics of the imaging plates, such as dynamic range, linearity, signal to noise ratio and detective quantum efficiency (DQE) of the imaging plates. Talking account of the properties of the imaging plates, quantitative analysis of high-resolution electron microscope images, observed intensity is compared with calculated one through a residual index. Several important requirements for quantitative high-resolution electron microscopy are pointed out. Application of the imaging plates for observation of electron diffraction patterns, use of an energy filter such as an omega-type filter is very effective. Thus, it is pointed out that combining the imaging plates and omega-type filter is promising for quantitative analysis of electron diffraction patterns.