

Abstract

METHOD AND SYSTEM FOR FOCUS ADJUSTMENT A MULTI-BEAM SCANNING ELECTRON MICROSCOPY SYSTEM

A scanning electron microscopy system is disclosed. The system includes a multi-beam scanning electron microscopy (SEM) sub-system. The SEM sub-system includes a multi-beam electron source configured to form a plurality of electron beams, a sample stage configured to secure a sample, an electron-optical assembly to direct the electron beams onto a portion of the sample, and a detector assembly configured to simultaneously acquire multiple images of the surface of the sample. The system includes a controller configured to receive the images from the detector assembly, identify a best focus image of images by analyzing one or more image quality parameters of the images, and direct the multi-lens array to adjust a focus of one or more electron beams based on a focus of an electron beam corresponding with the identified best focus image.

Figure 1A