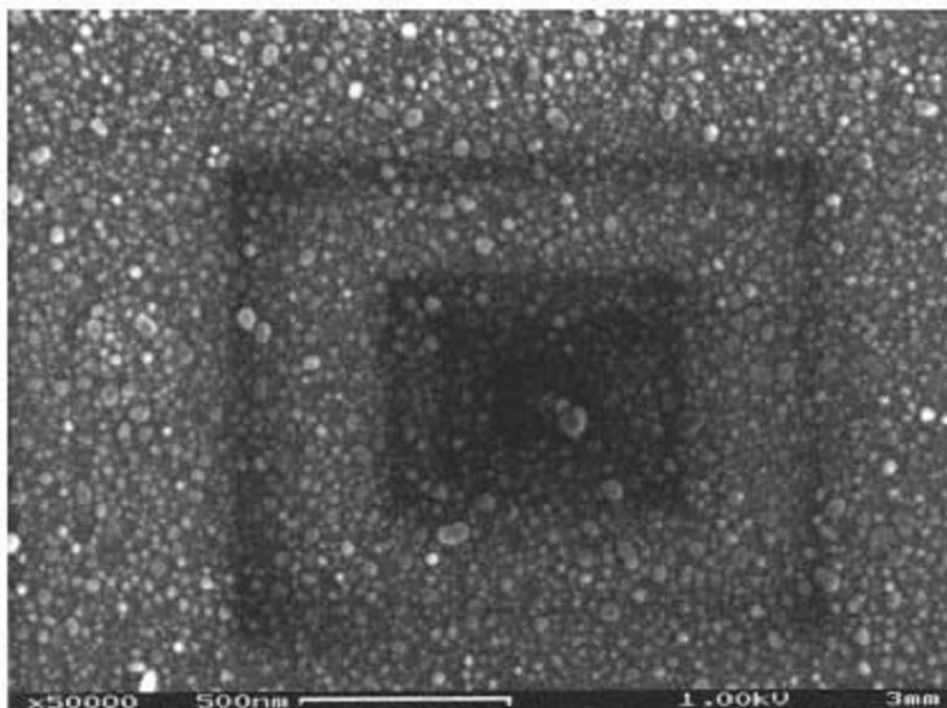


SEM Sample preparation

Most SEM samples only require some preliminary treatment before mounting for examination in the SEM.

The macroscopic sample size is dependent on the ability of the SEM stage and chamber to orient a sample. The largest sample for our 2 new Zeiss FEG SEM could be as the width 200 mm and height 25 mm.

A big trouble for SEM Sample preparation is contamination, and in principle, all specimens could carry contaminants into the chamber. These contaminants might be part of the specimen, or caused by improper sample handling or storage techniques. Once present inside the chamber, these contaminants will cause trouble during SEM examination as shown in below figure.



SEM micrograph of Al on TiN. The beam was first focused on the central region of the micrograph for ca 30 s, and then the magnification was reduced and the micrograph recorded immediately. The buildup of contamination in the central region strongly affects the contrast of the image