Figure 5-1  The thickness variation of e-beam exposed MSZ films with different doses.

Figure 5-2  FITR spectra of e-beam exposed MSZ films with different doses.
Figure 5-3 The leakage current of e-beam exposed MSZ is compared to that of traditional furnace cured one.

Figure 5-4 The FTIR spectra of e-beam exposed MSZ with different doses after thermal annealing.
Figure 5-5  Dielectric properties of e-beam exposed MSZ with different doses after thermal annealing (a) leakage current density of MSZ films versus electric field (b) variation in dielectric constant of MSZ films.
Figure 5-6  The transfer curve of e-beam exposed MSZ with different doses after 10 % wt TMAH development process.

Figure 5-7  The optical image of single line pattern of e-beam exposed MSZ film after development.
Figure 5-8  The SEM cross section image of dense pattern lines of e-beam exposed MSZ film after development.