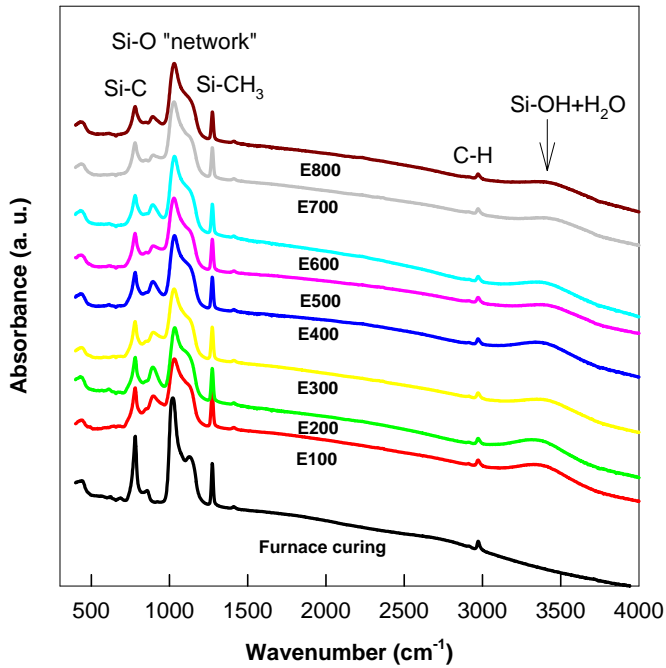
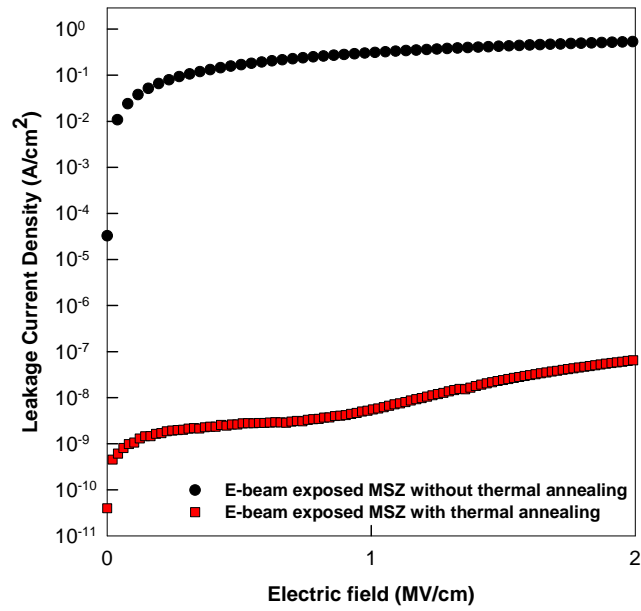


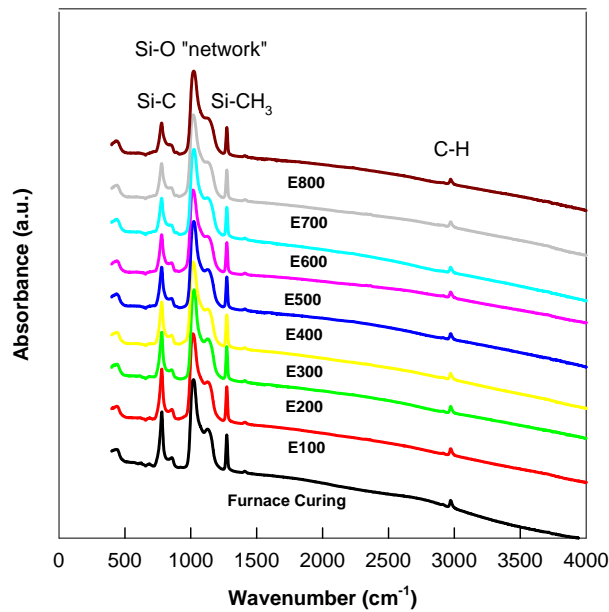
**Figure 5-1** The thickness variation of e-beam exposed MSZ films with different doses.



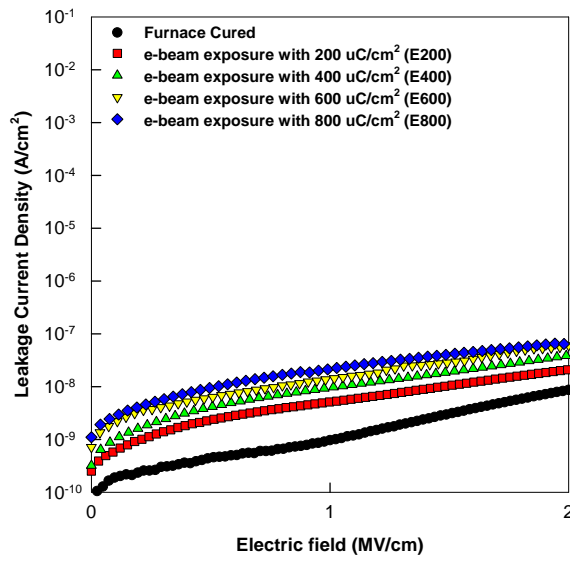
**Figure 5-2** FTIR spectra of e-beam exposed MSZ films with different doses.



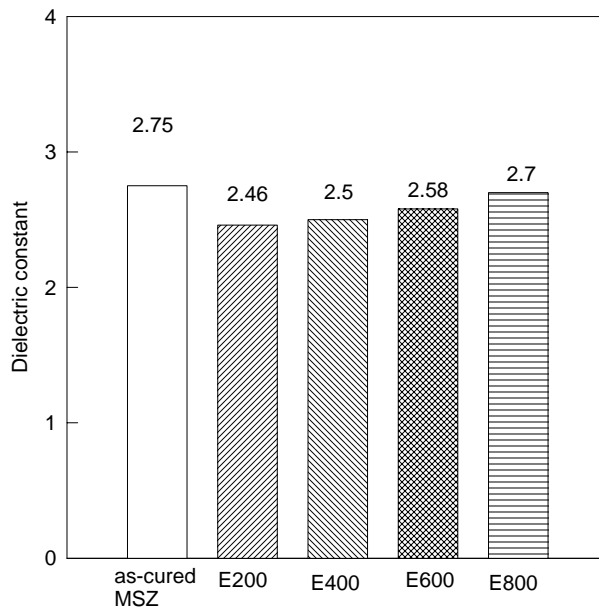
**Figure 5-3** The leakage current of e-beam exposed MSZ is compared to that of traditional furnace cured one.



**Figure 5-4** The FTIR spectra of e-beam exposed MSZ with different doses after thermal annealing.

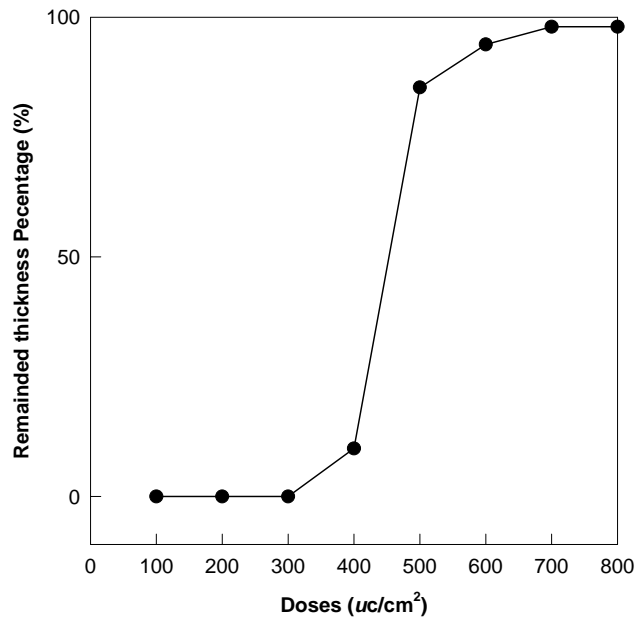


(a)

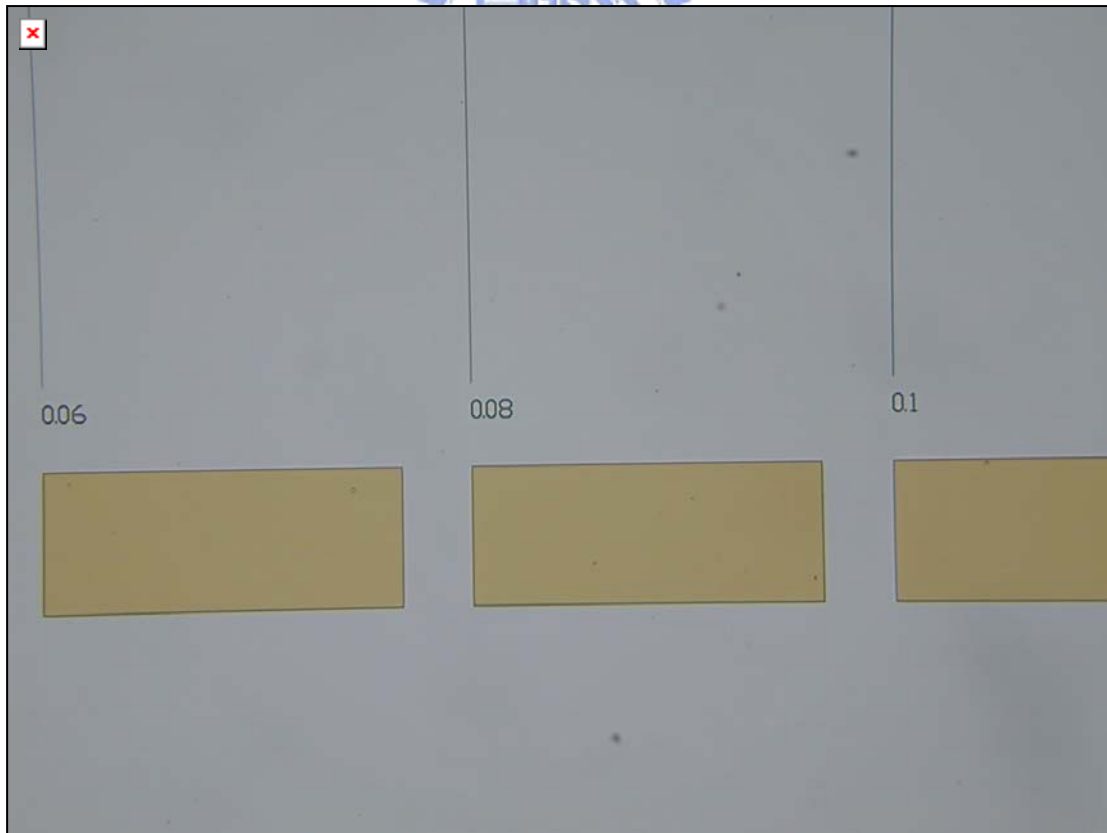


(b)

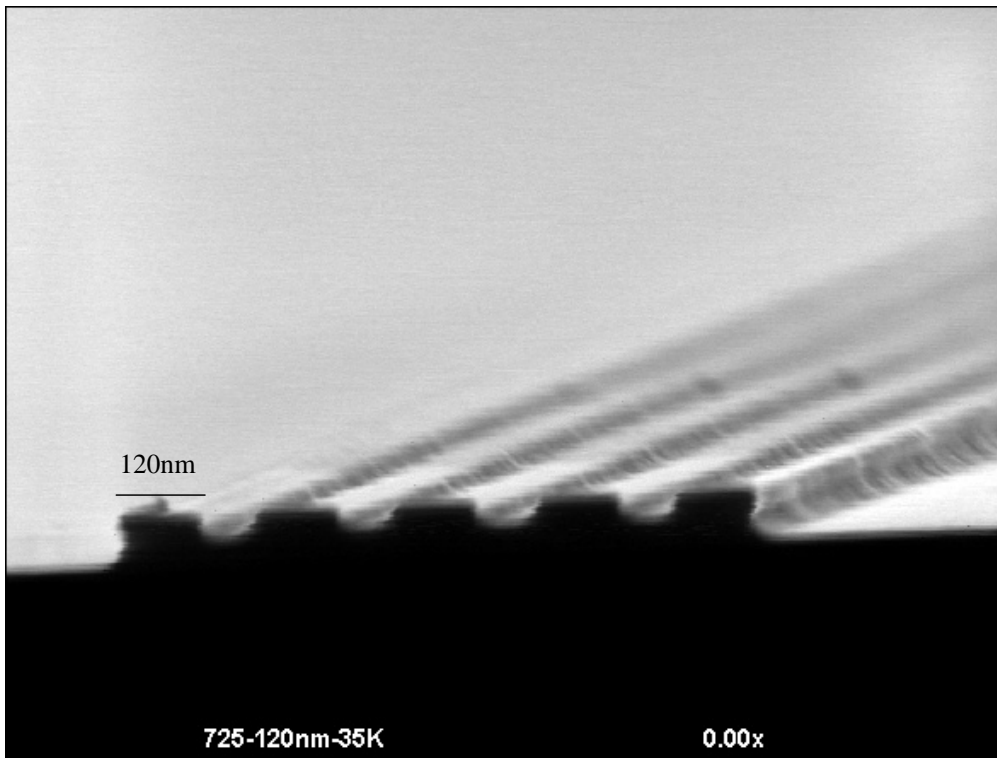
**Figure 5-5** Dielectric properties of e-beam exposed MSZ with different doses after thermal annealing (a) leakage current density of MSZ films versus electric field (b) variation in dielectric constant of MSZ films.



**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.

