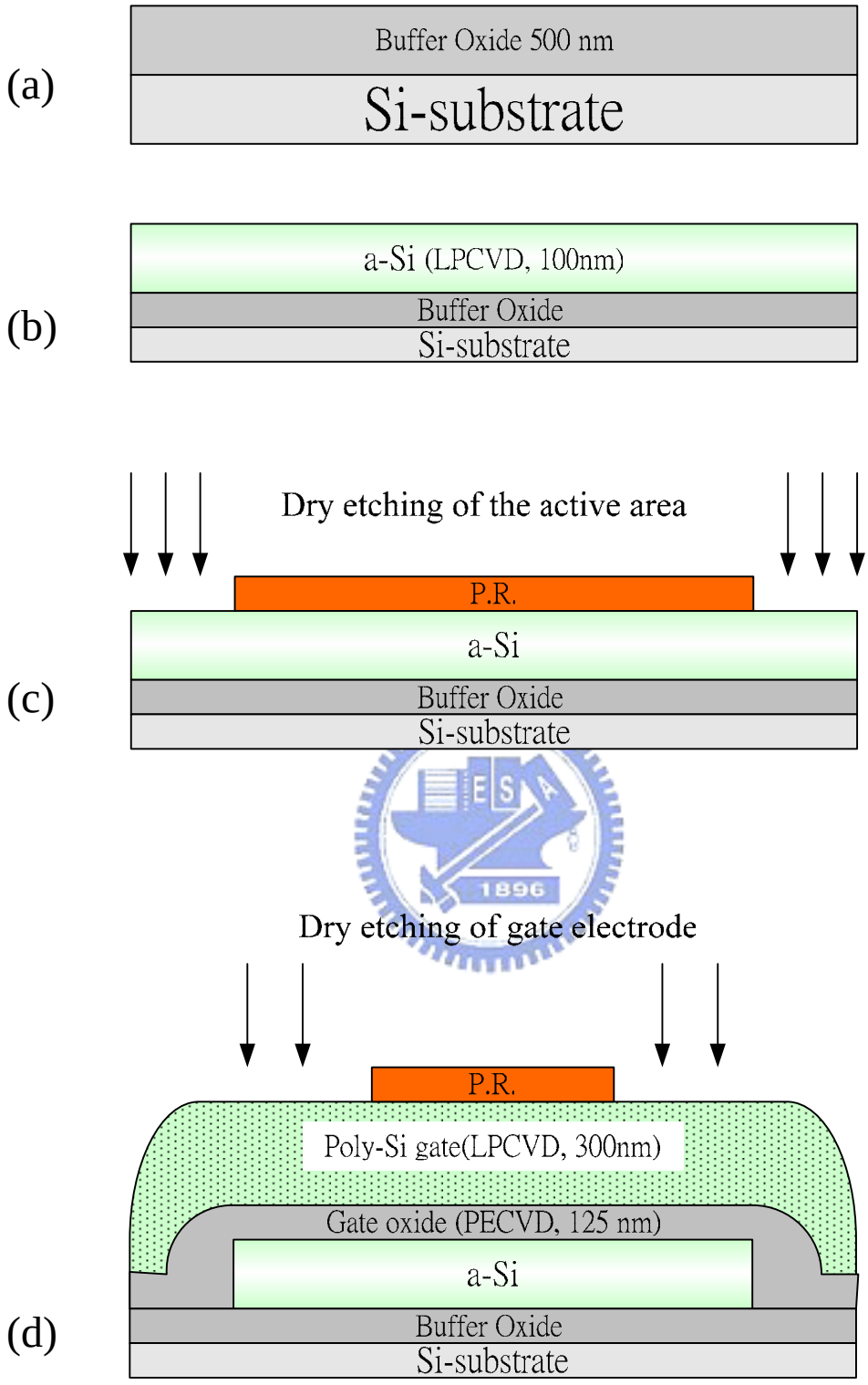


Figure 3-1 Process flow of MILC n-channel TFT's with Ge Layer and Si_3N_4 NanoCap Layer.

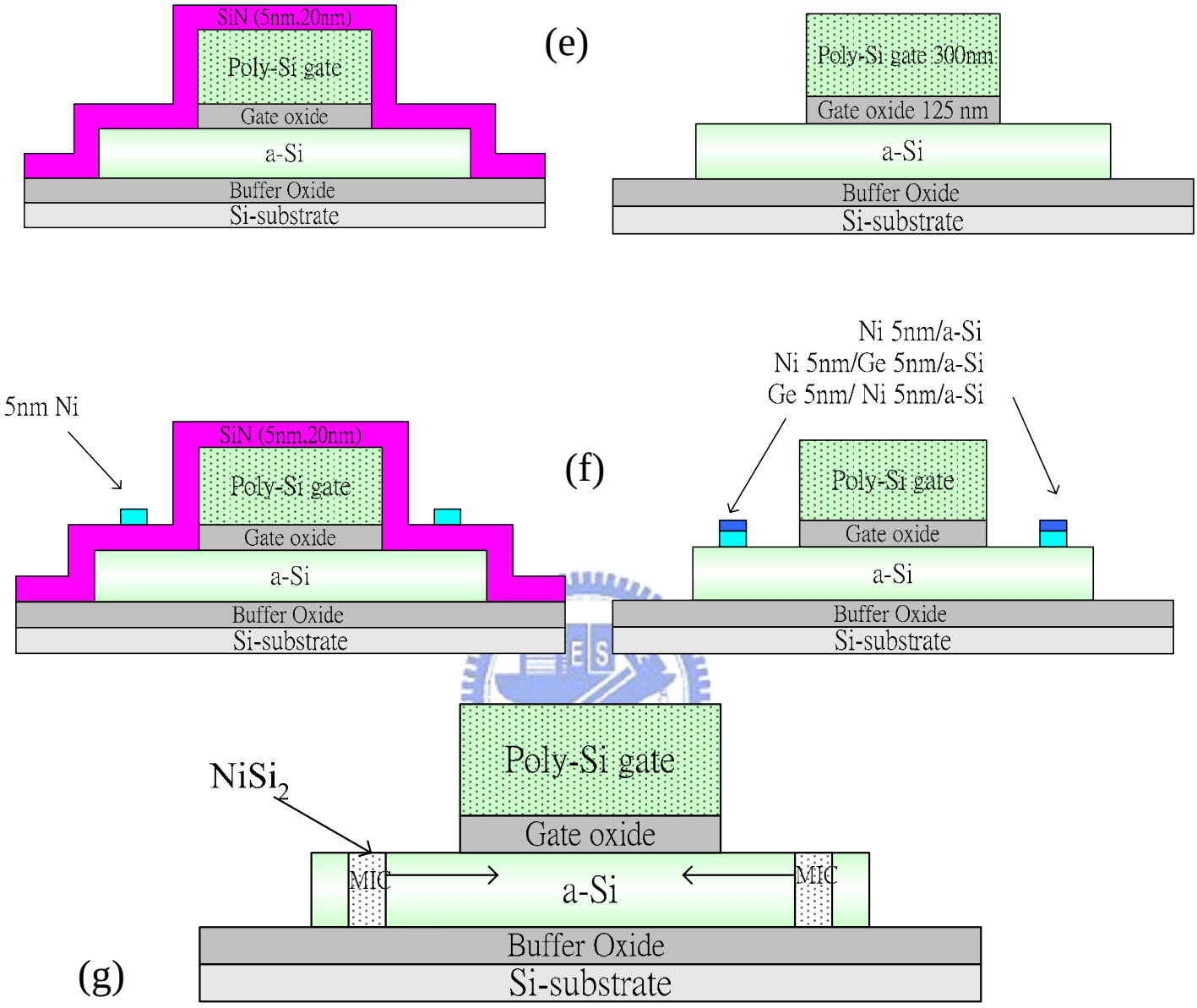
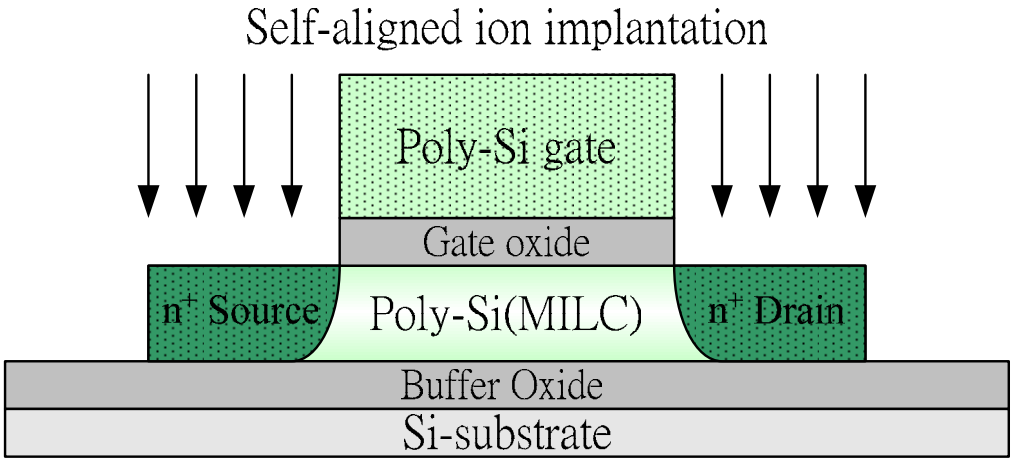


Figure 3-1 Process flow of MILC n-channel TFT's with Ge Layer and Si_3N_4 NanoCap Layer.

(h)



(g)

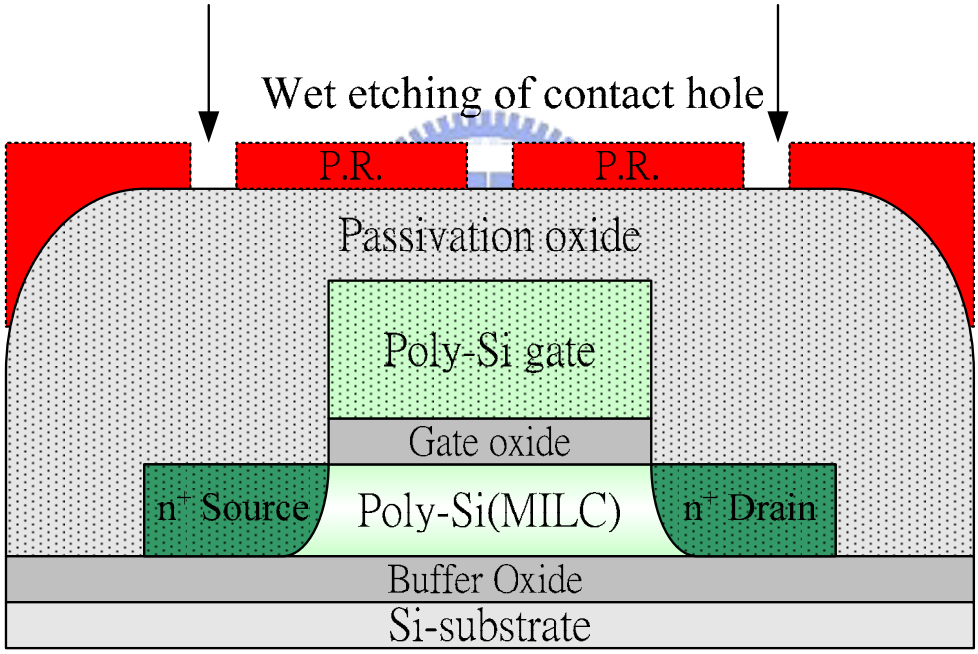


Figure 3-1 Process flow of MILC n-channel TFT's with Ge Layer and Si_3N_4 NanoCap Layer.

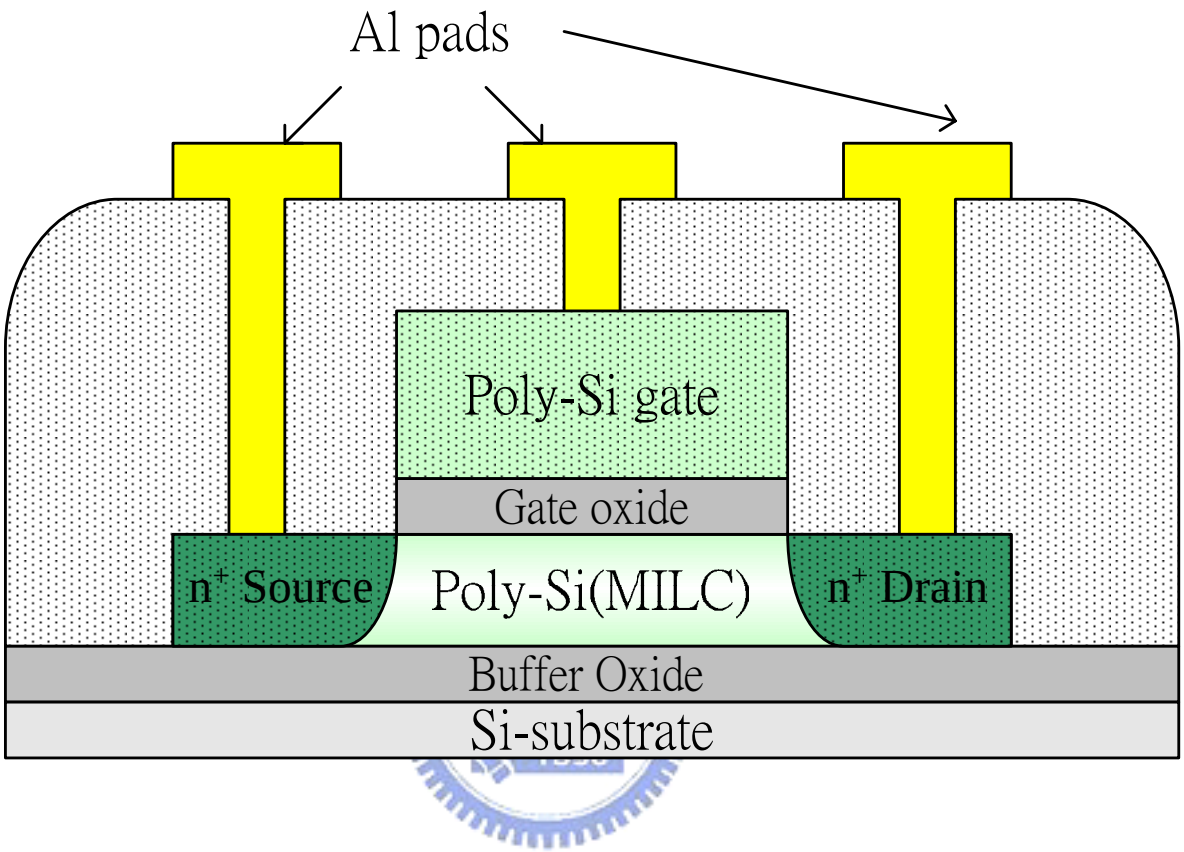


Figure 3-1 Process flow of MILC n-channel TFT's with Ge Layer and Si_3N_4 NanoCap Layer.

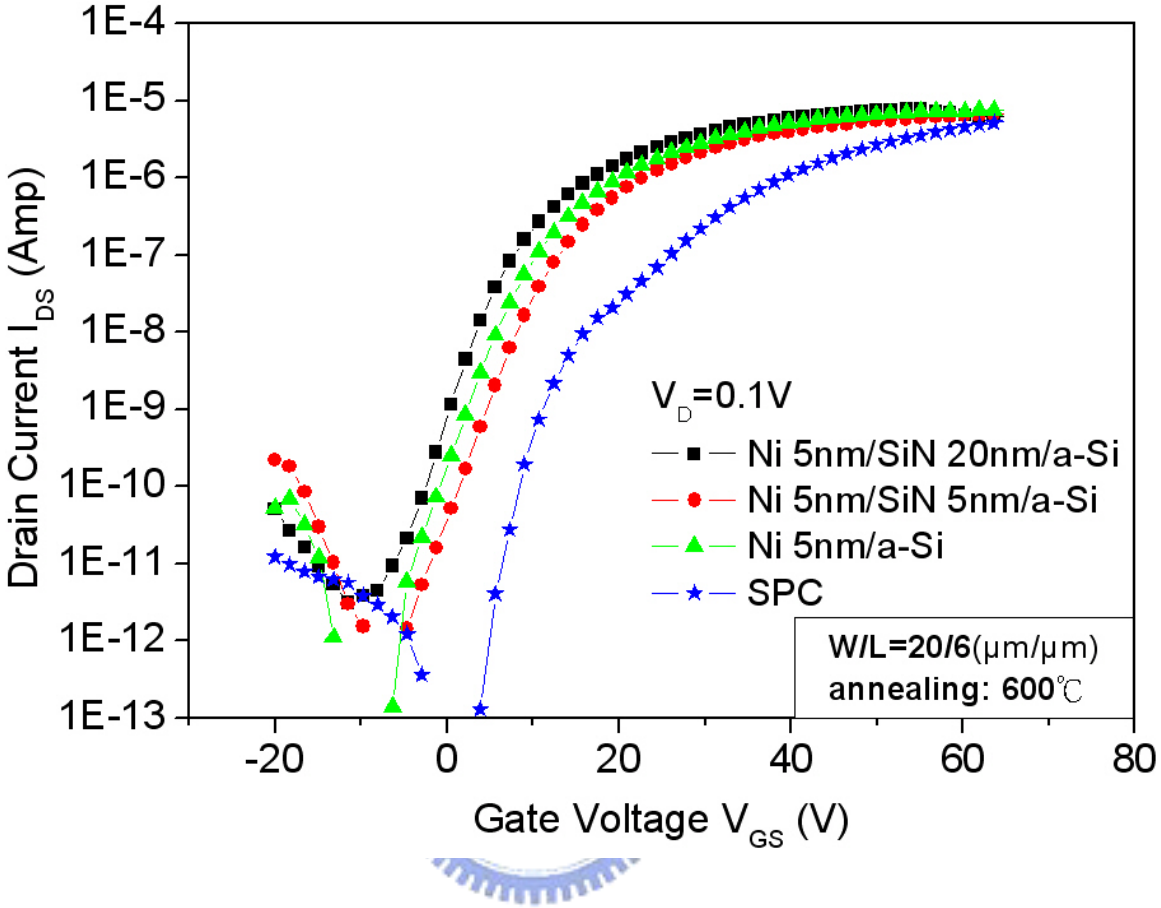


Figure 3.2 Transfer characteristics for comparison of MILC TFT's with and without Si_3N_4 filter layer(V_D=0.1V).

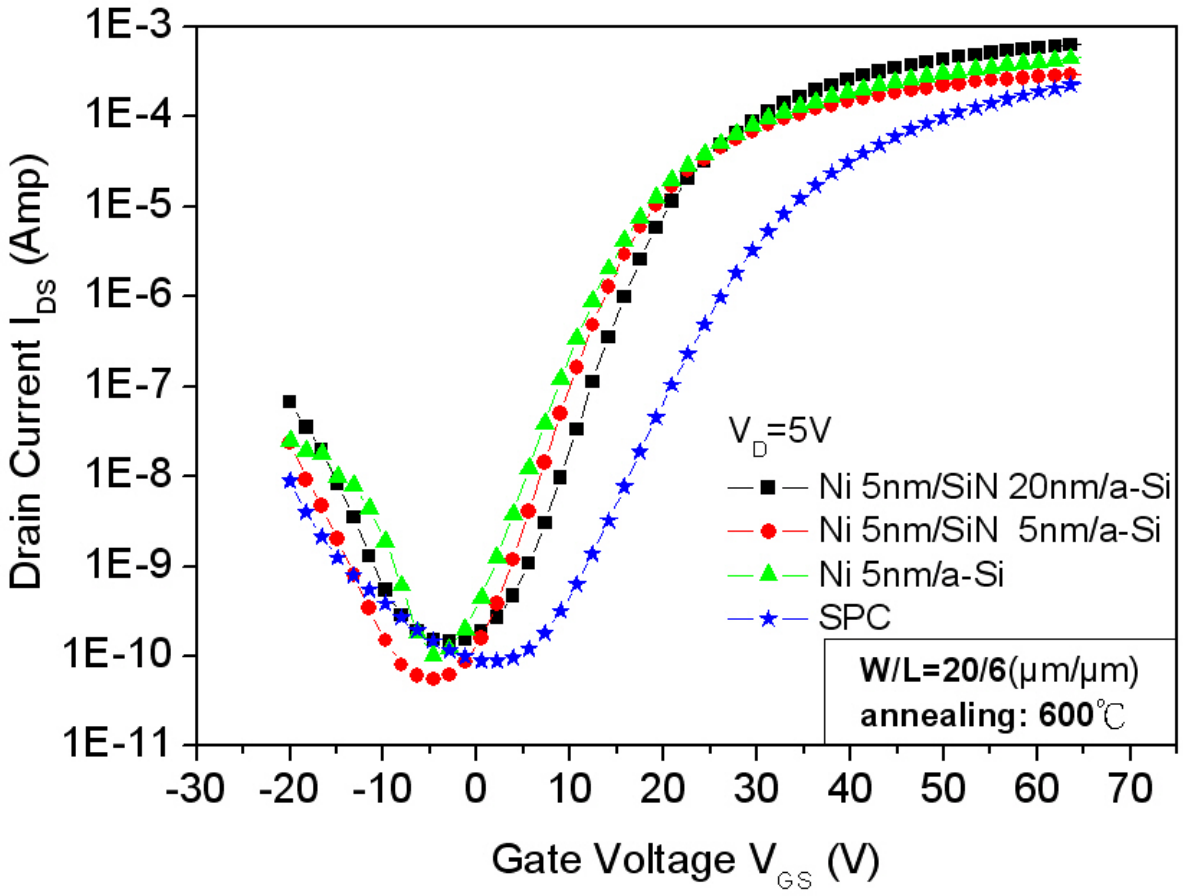


Figure 3.3 Transfer characteristics for comparison of MILC TFT's with and without Si_3N_4 filter layer(V_D=5V).

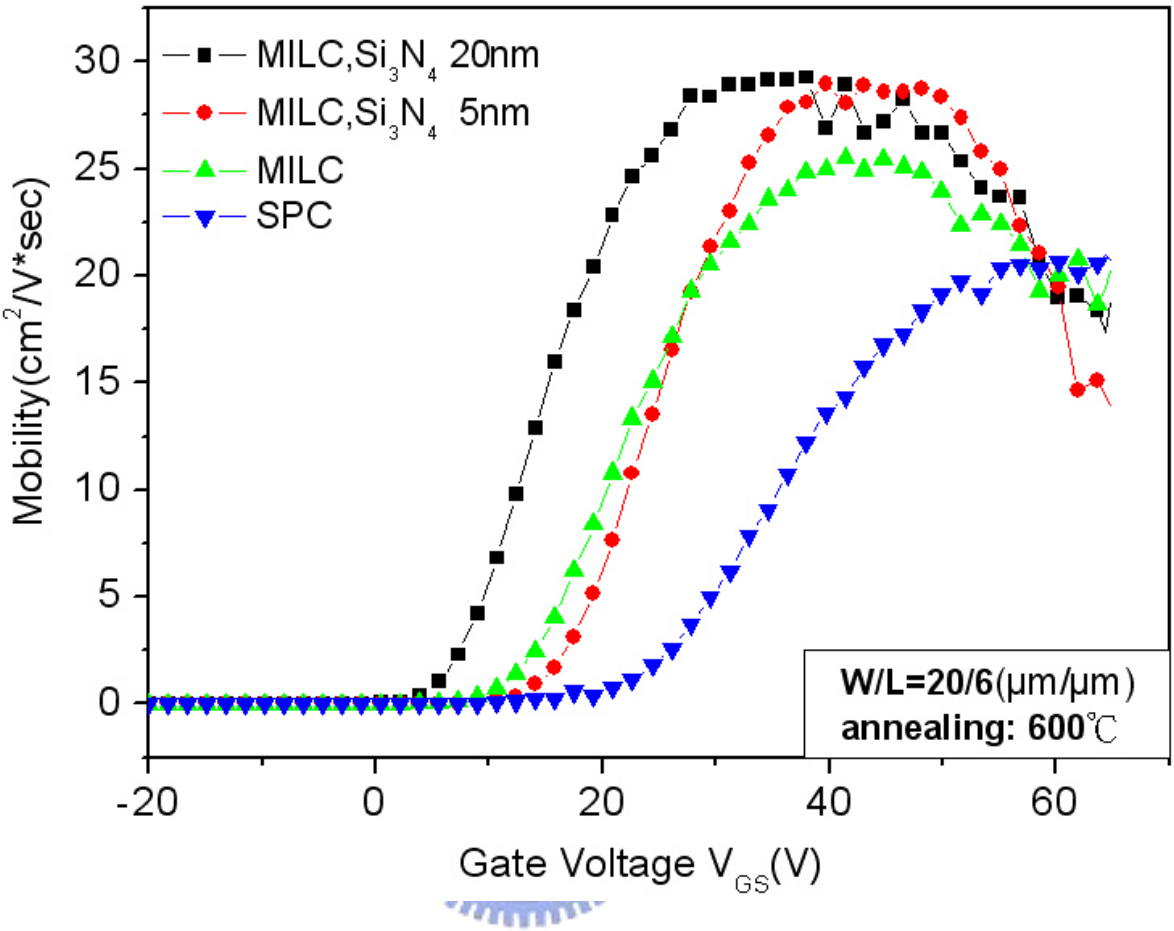


Figure 3.4 Comparsion of mobility fo MILC TFT's with and without Si_3N_4 filter layer at V_{DS}=0.1V.

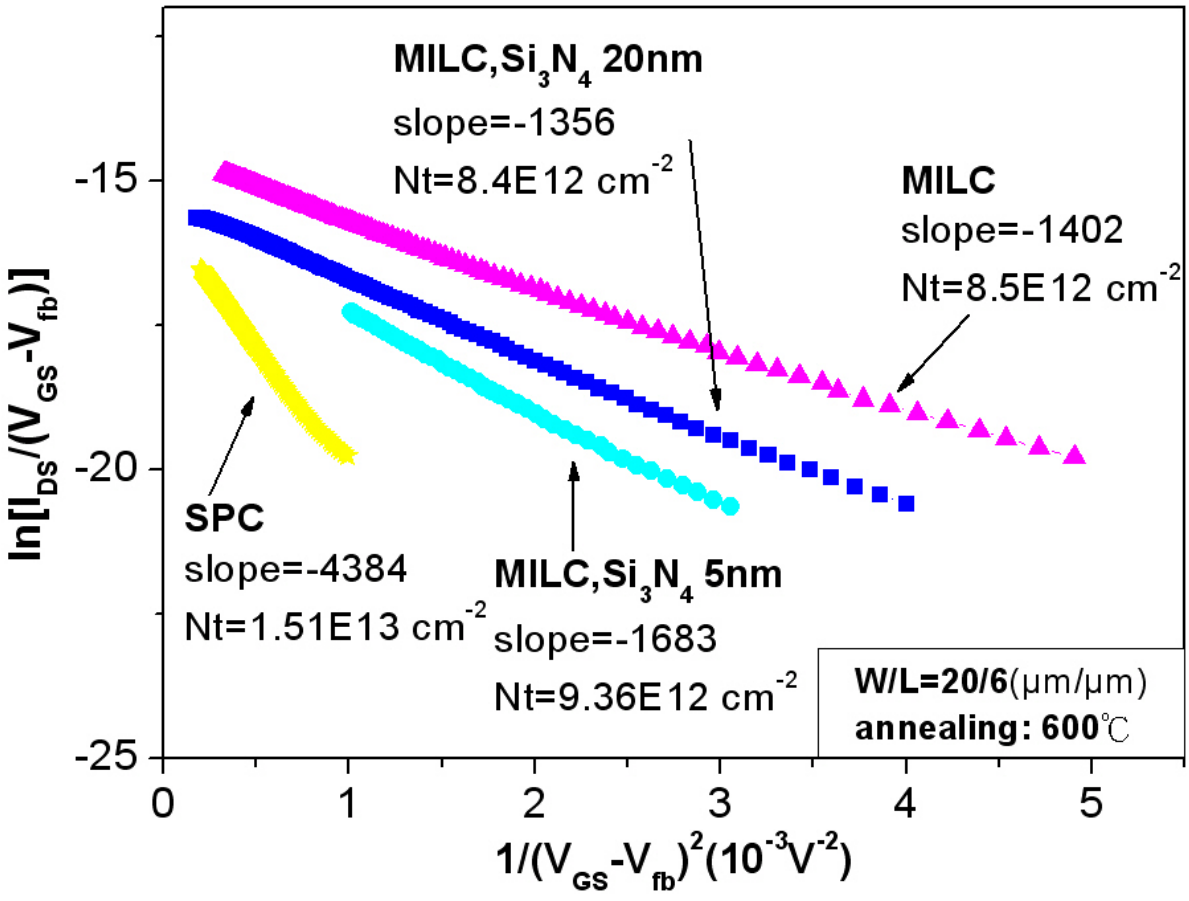


Figure 3.5 Extraction of Nt by modified Levinson theorem for comparison of MILC TFT's and SPC TFT's.

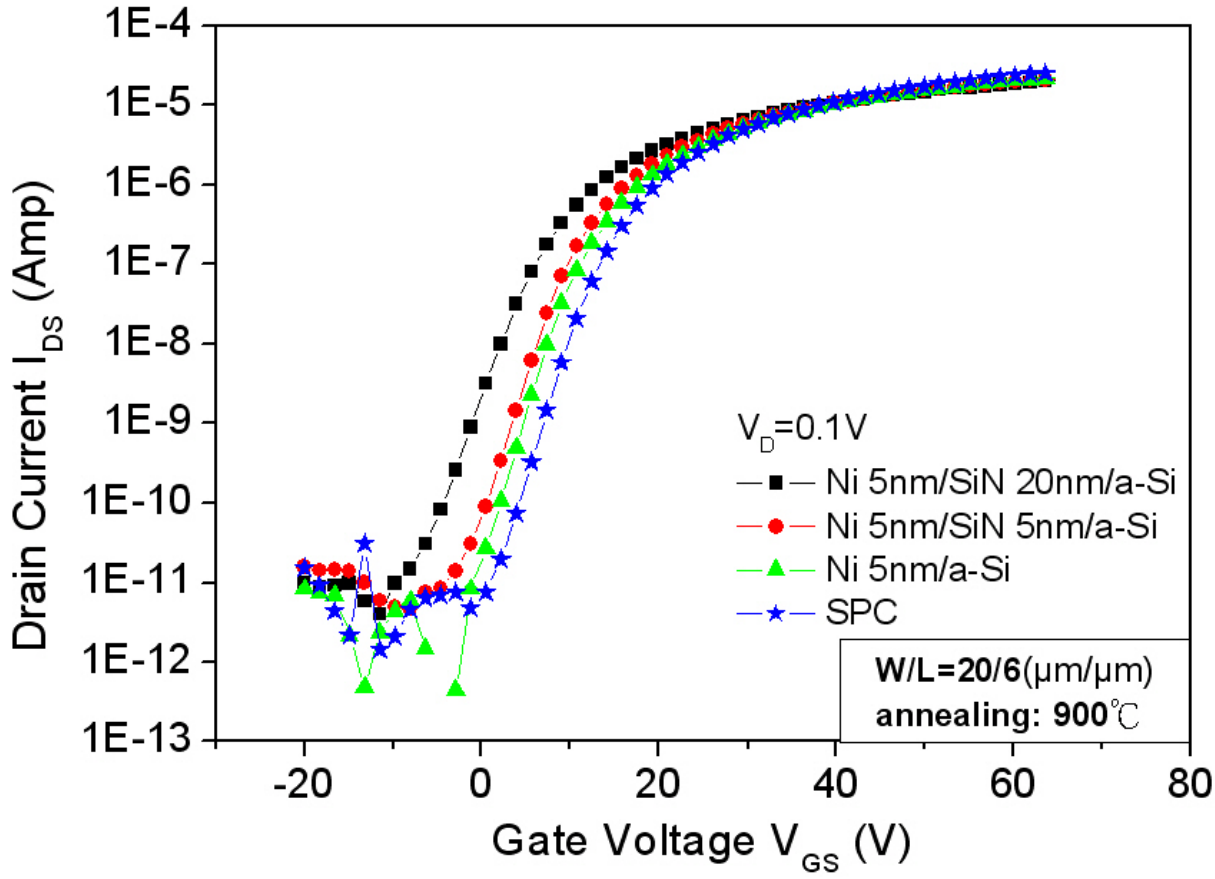


Figure 3.6 Transfer characteristics for comparison of MILC TFT's with and without Si_3N_4 filter layer(V_D=0.1V).

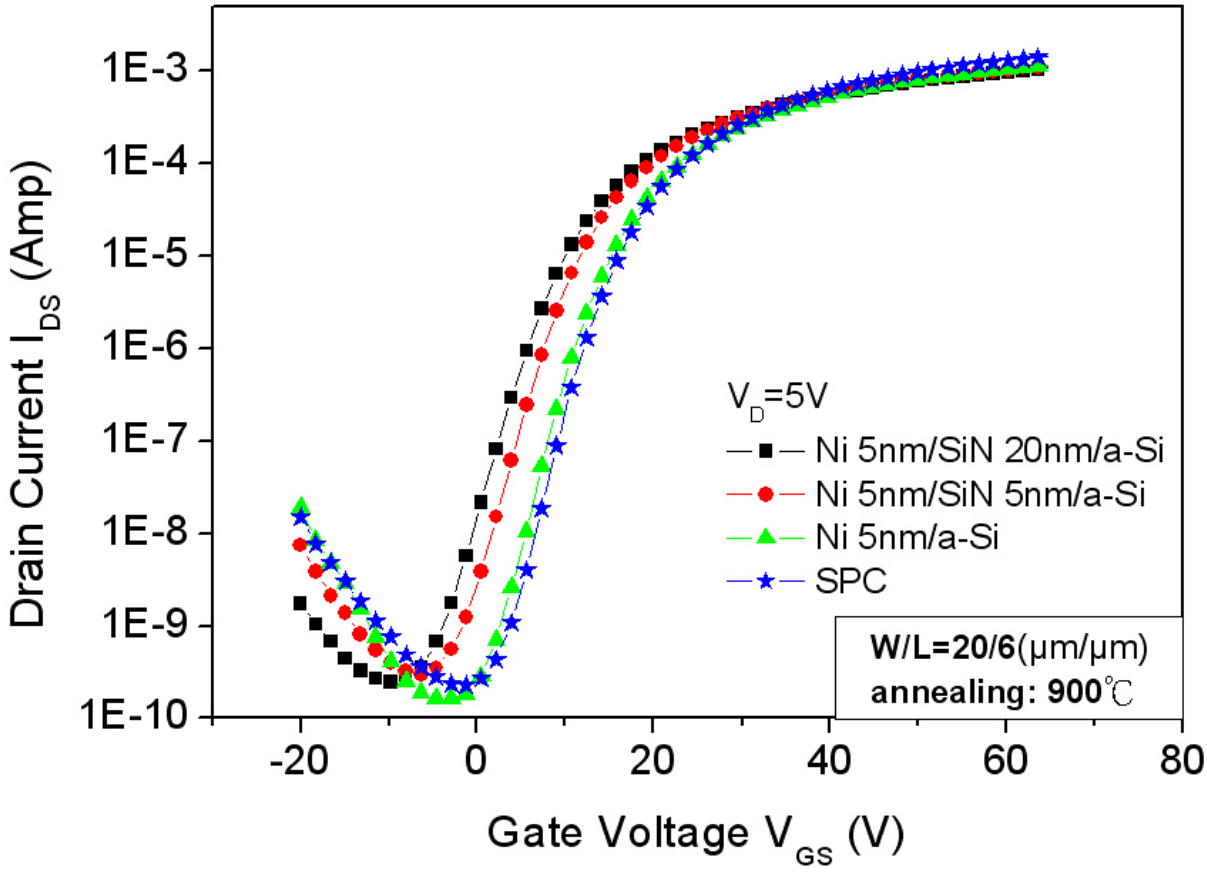


Figure 3.7 Transfer characteristics for comparison of MILC TFT's with and without Si_3N_4 filter layer(V_D=5V).

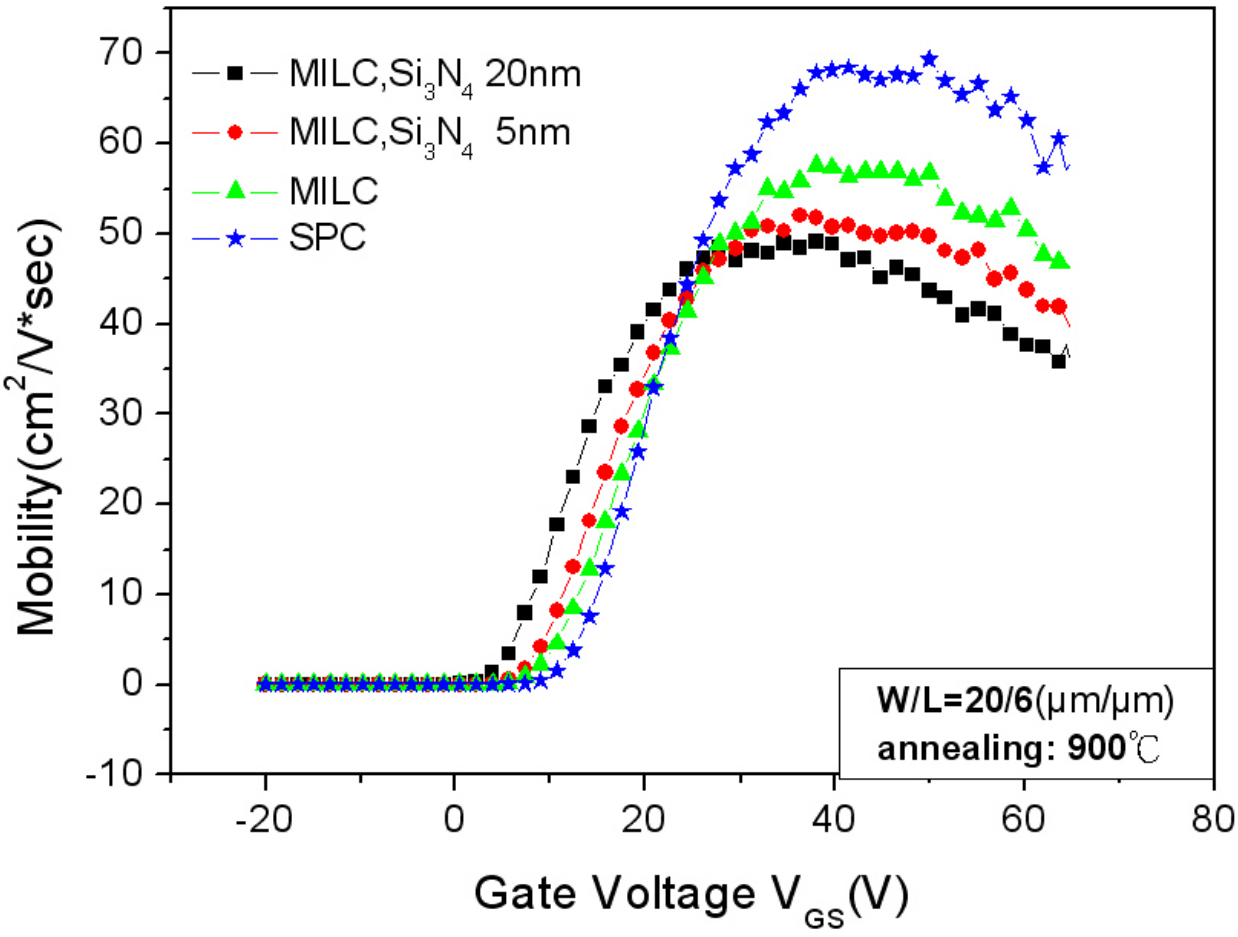


Figure 3.8 Comparsion of mobility fo MILC TFT's with and without Si_3N_4 filter layer at V_{DS}=0.1V.

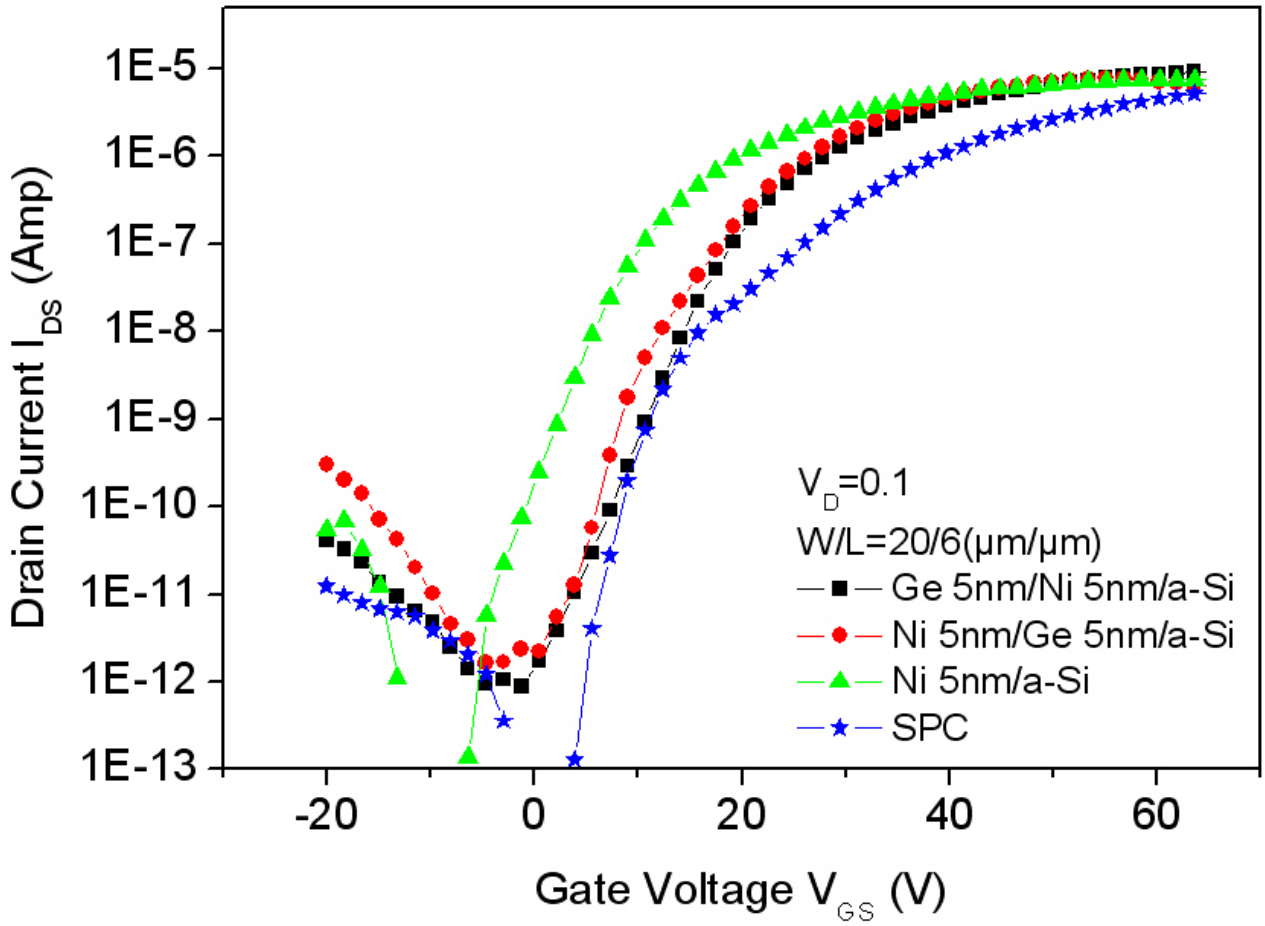


Figure 3.9 Transfer characteristics for MILC TFT's deposited Ge layer(V_D=0.1V).

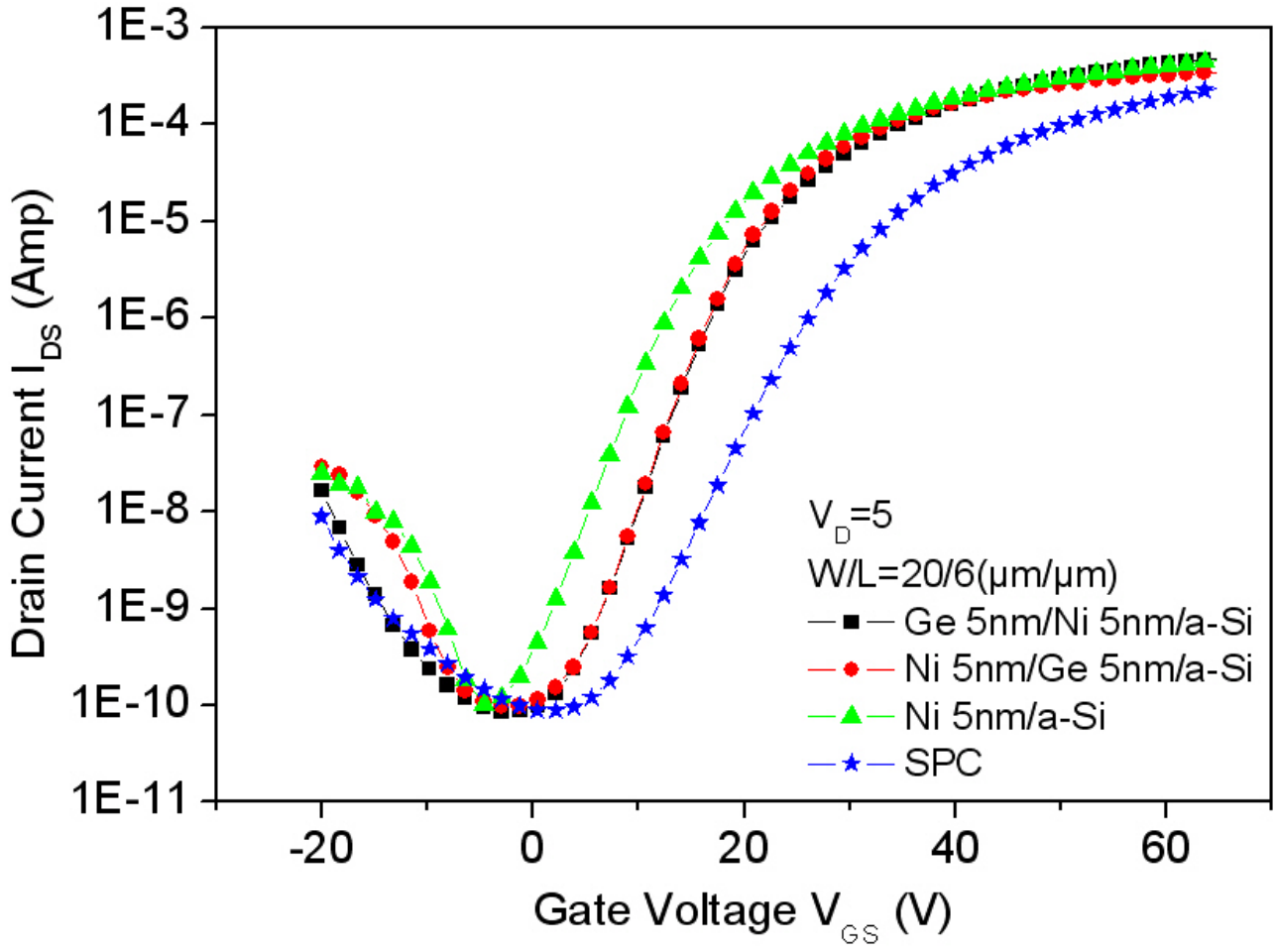


Figure 3.10 Transfer characteristics for MILC TFT's deposited Ge layer(V_D=5V).

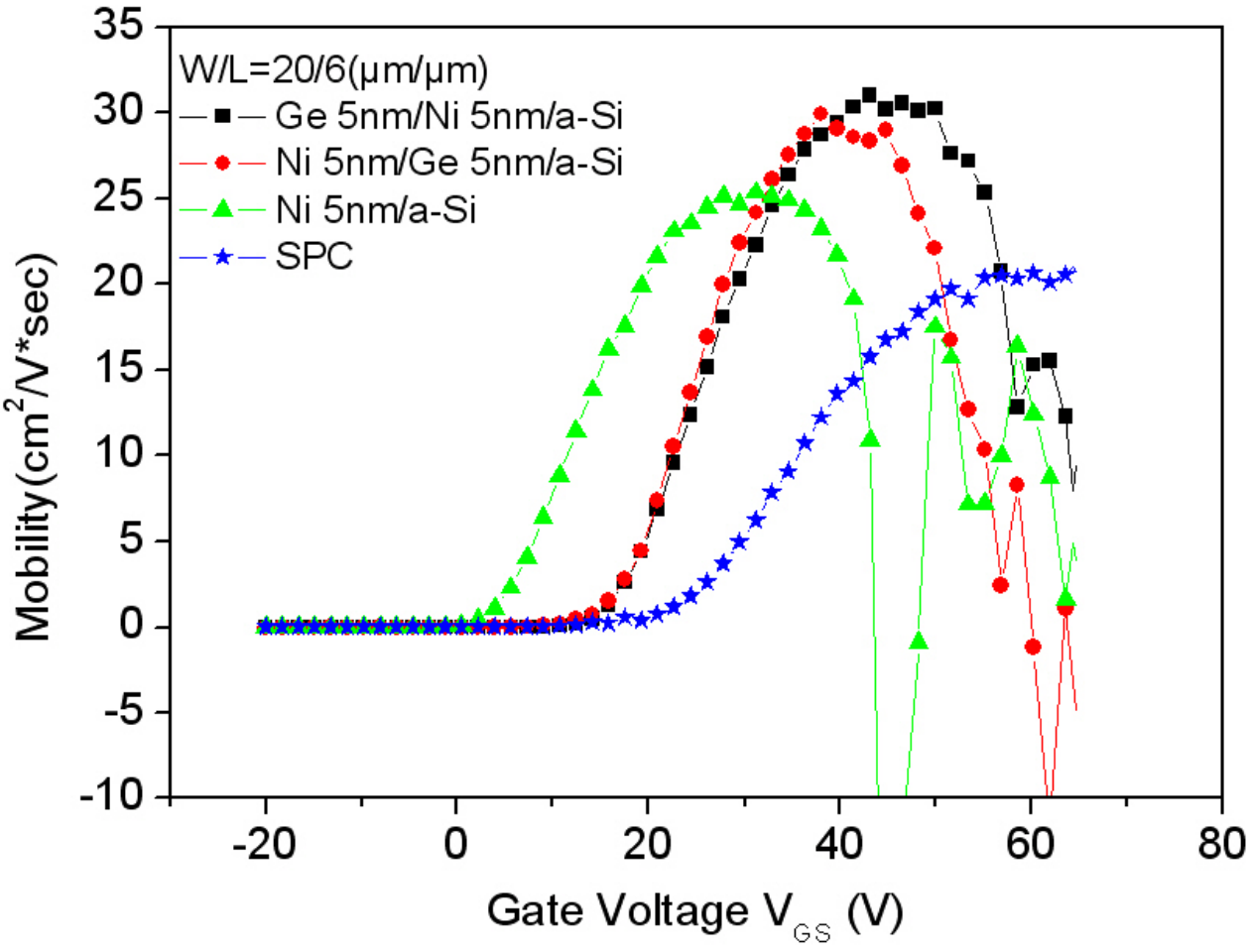


Figure 3.11 Comparsion of mobility fo MILC TFT's deposited Ge layer at V_{DS}=0.1V.

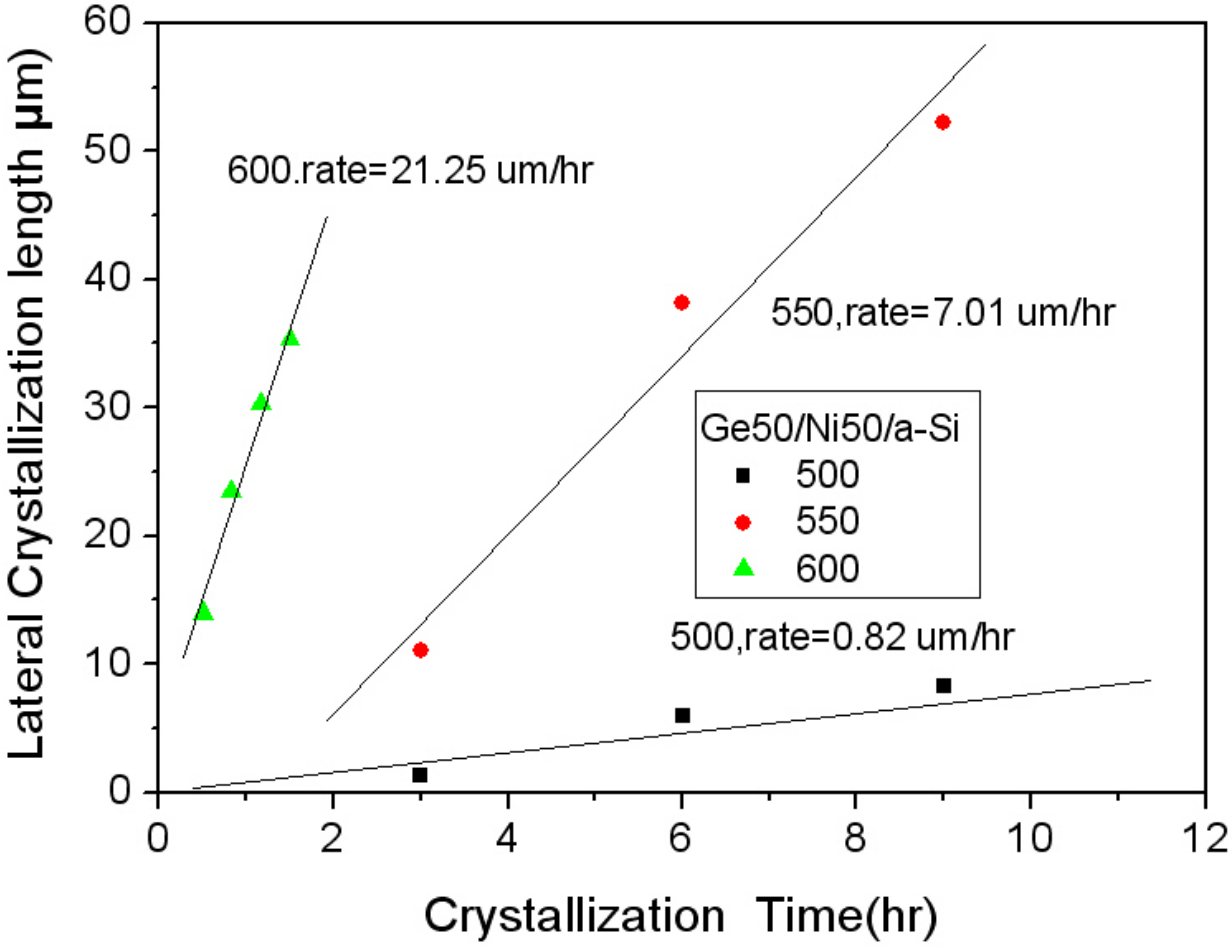


Fig. 3-12 Crystallization rate for Ge 5nm/ Ni 5nm/ a-Si deposited structure at different temperature.

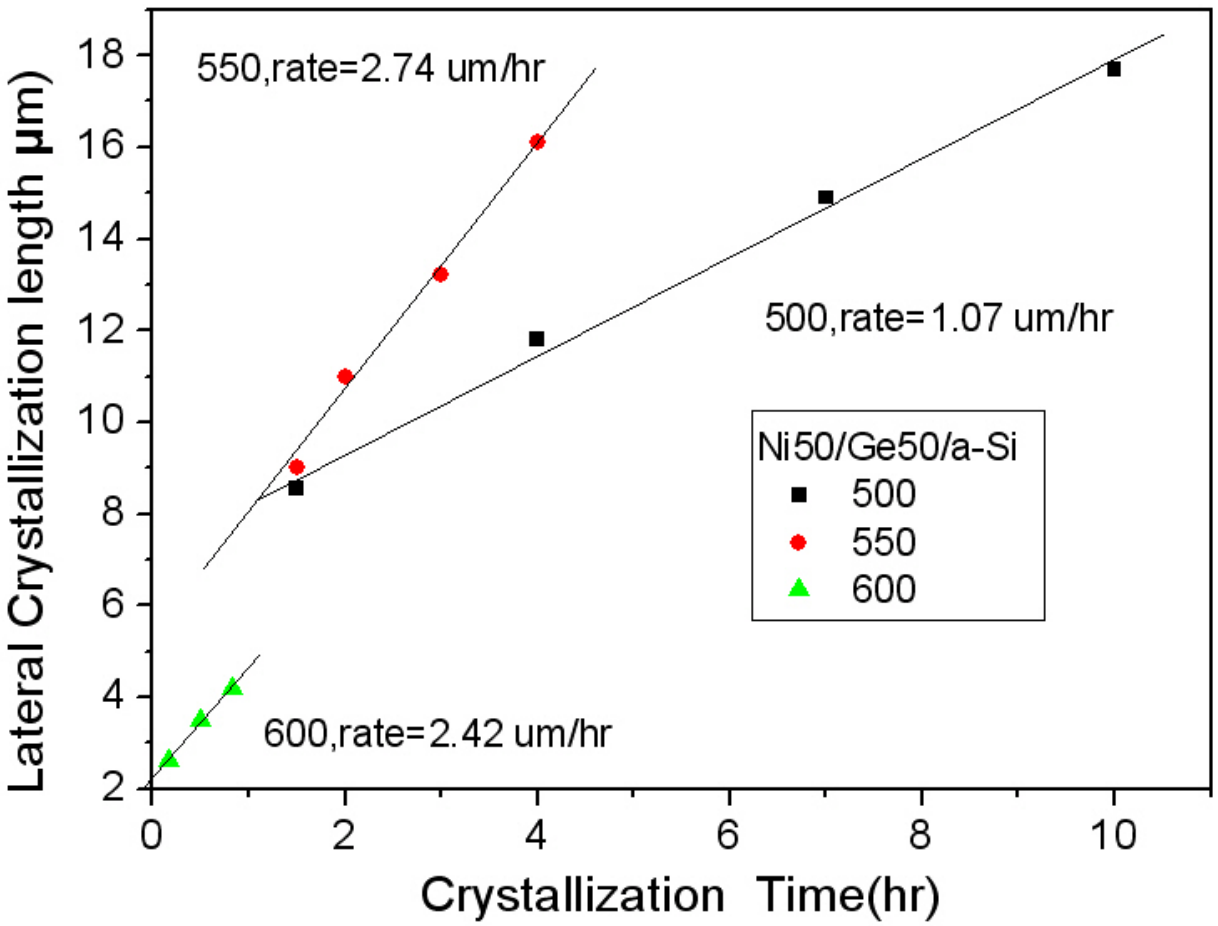


Fig. 3-13 Crystallization rate for Ni 5nm/ Ge 5nm/ a-Si deposited structure at different temperature.

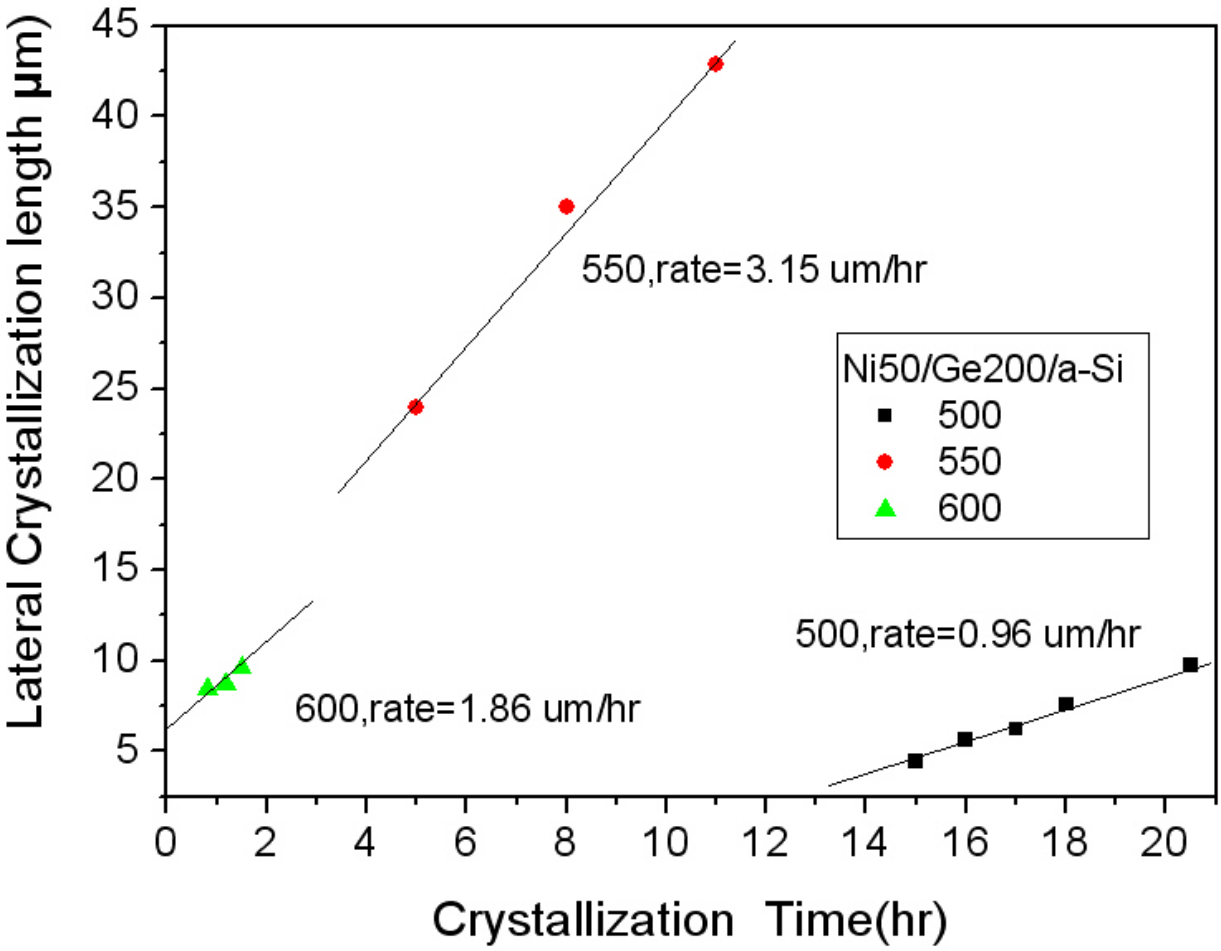


Fig. 3-14 Crystallization rate for Ni 5nm/ Ge 20nm/ a-Si deposited structure at different temperature.

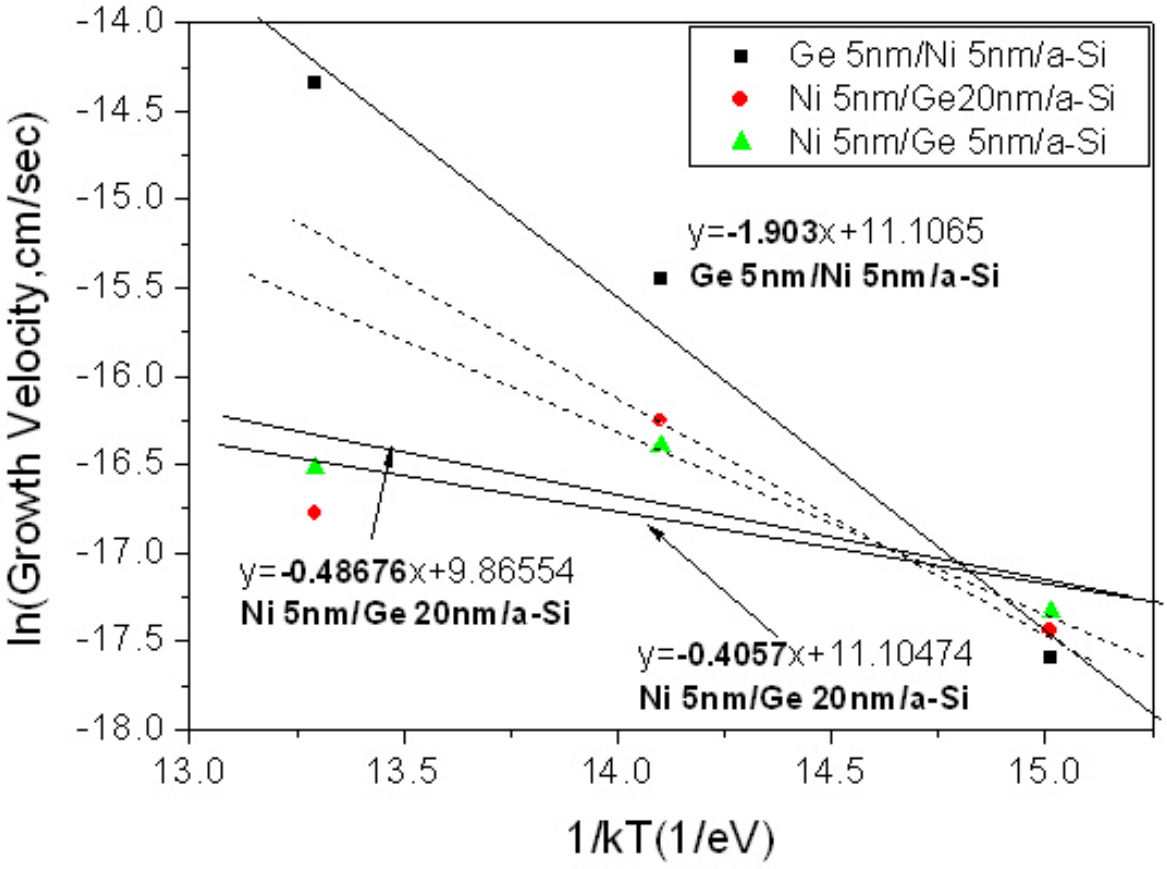


Fig. 3-15 Arrhenius plots and extracting of E_a and r_o for different samples.

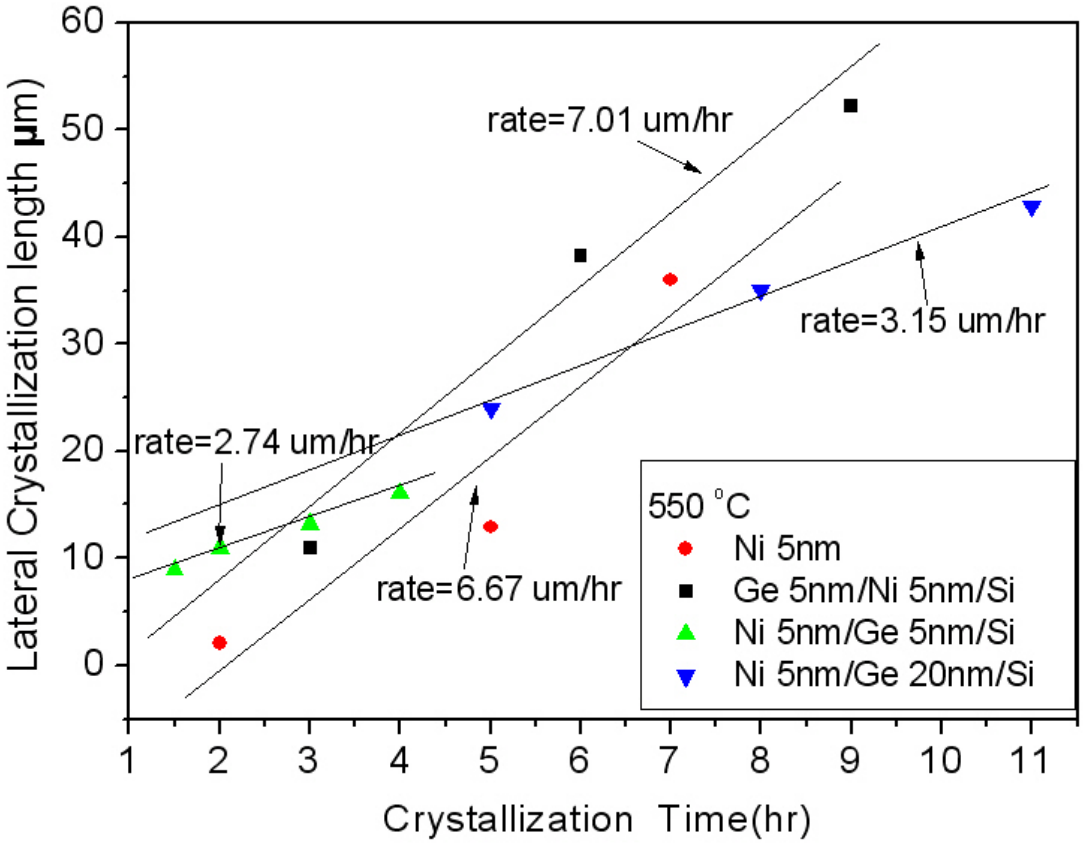
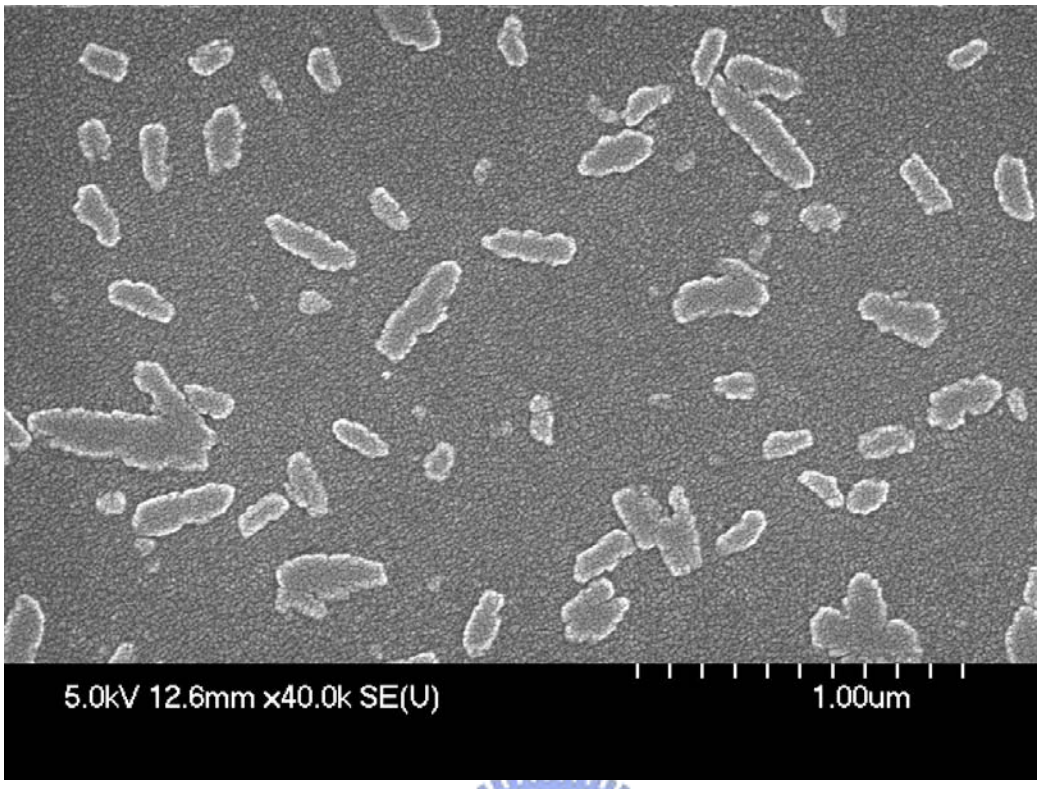
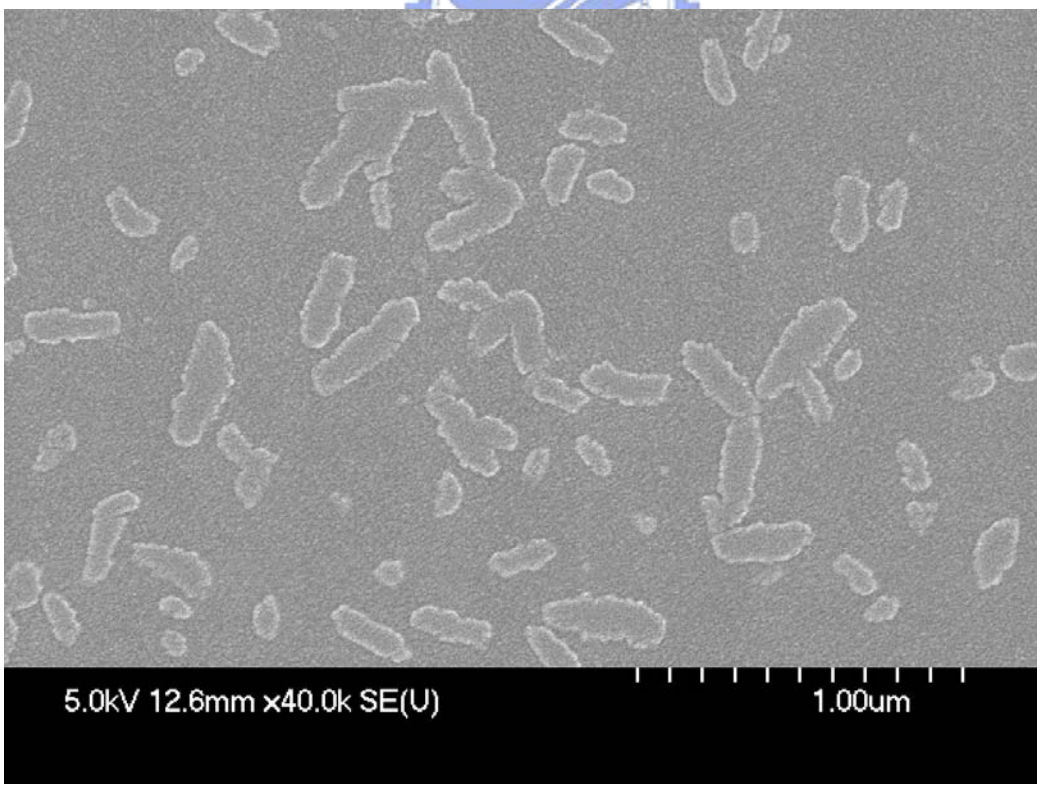


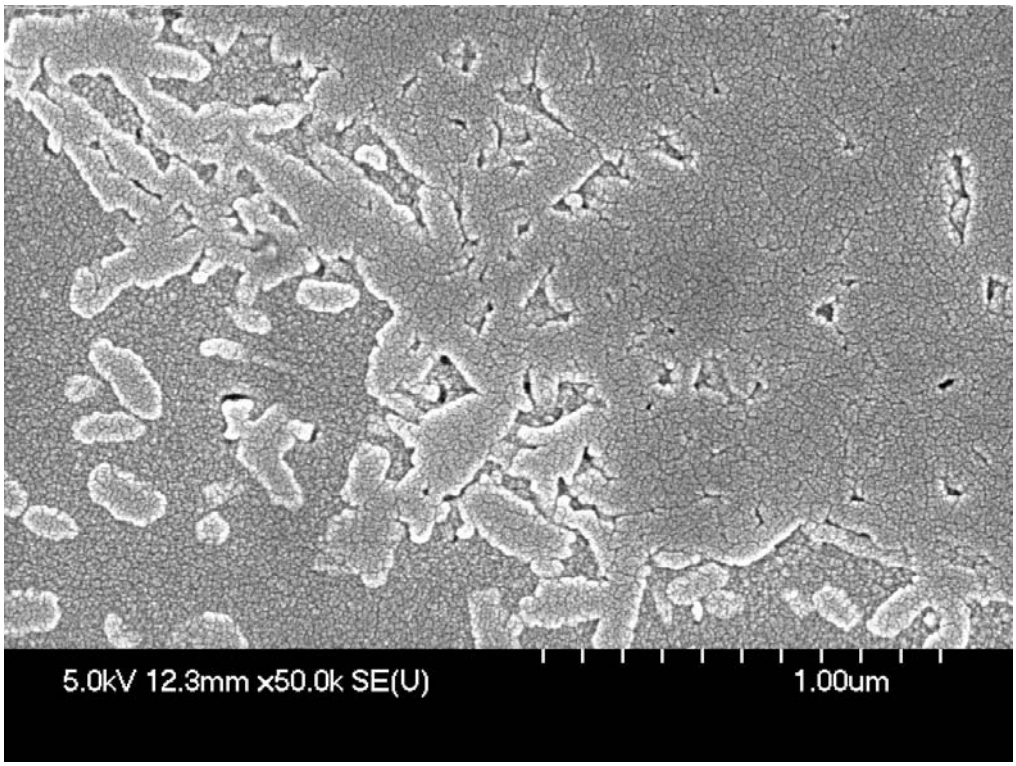
Fig. 3-16 Crystallization rate for different deposited metal structure at 550 °C.



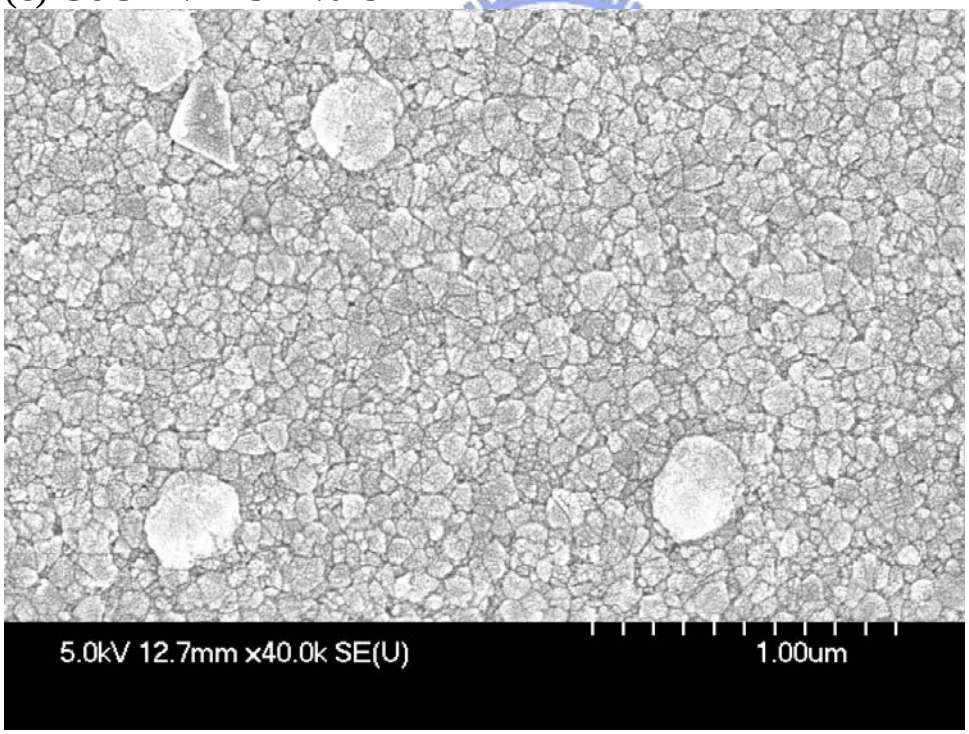
(a)Ni 5nm/Ge 5nm/a-Si



(b) Ni 5nm/Ge 20nm/a-Si



(c) Ge 5nm/Ni 5nm/a-Si



(d)Ni 5nm/$Si_{0.85}Ge_{0.15}$

Fig.3-17 SEM graph of Secco-etched Ni MILC Poly –Si for difference structure ,after 6 hr at 550 ^{o}C:
(a)Ni 5nm/Ge 5nm/a-Si, (b) Ni 5nm/Ge 20nm/a-Si, (c) Ge 5nm/Ni 5nm/a-Si, (d)Ni 5nm/$Si_{0.85}Ge_{0.15}$

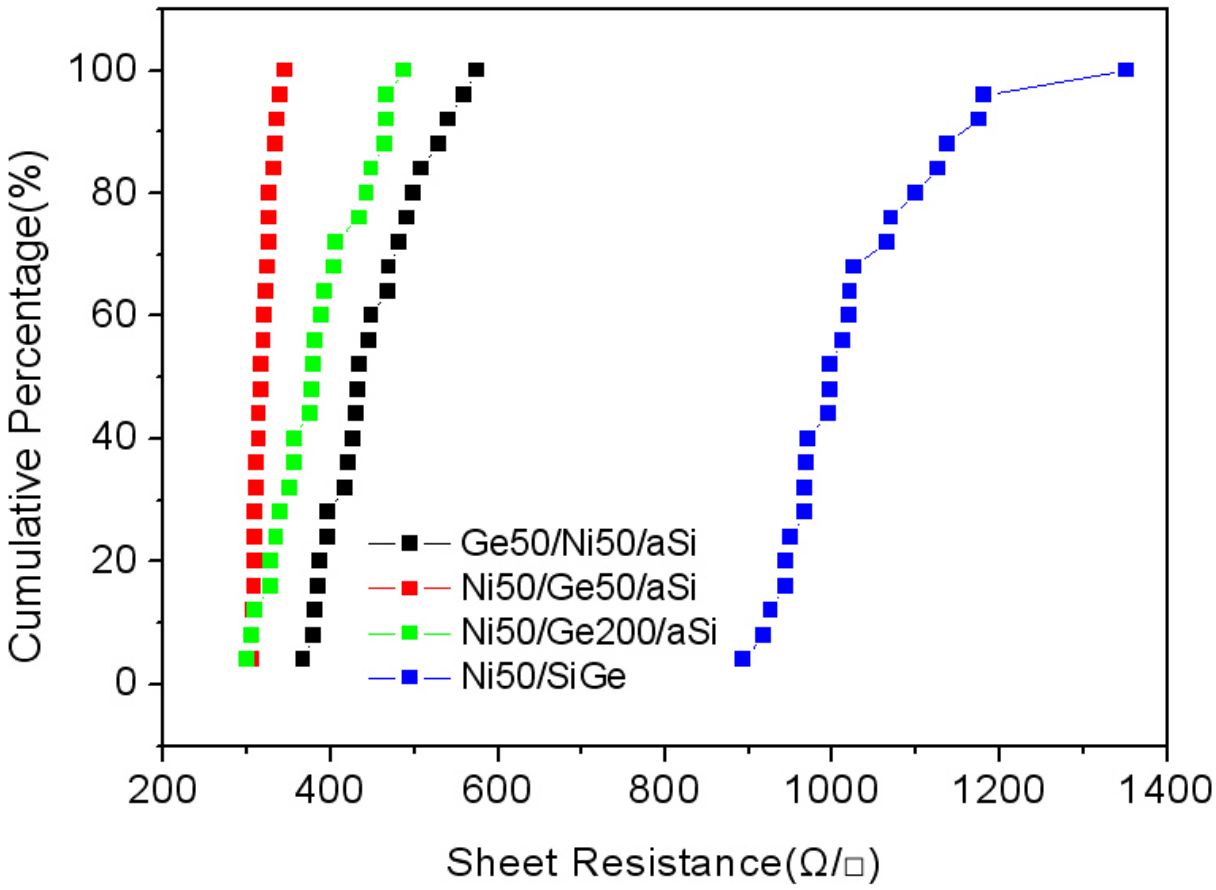


Fig.3-18 Sheet resistance for metal-induced crystallization after 24 hr at 550 °C.