

Fig. 4-1(a) the initial  $C_{GS}$ -V curves of an n-channel ELA TFT without LDD at different measurement frequency

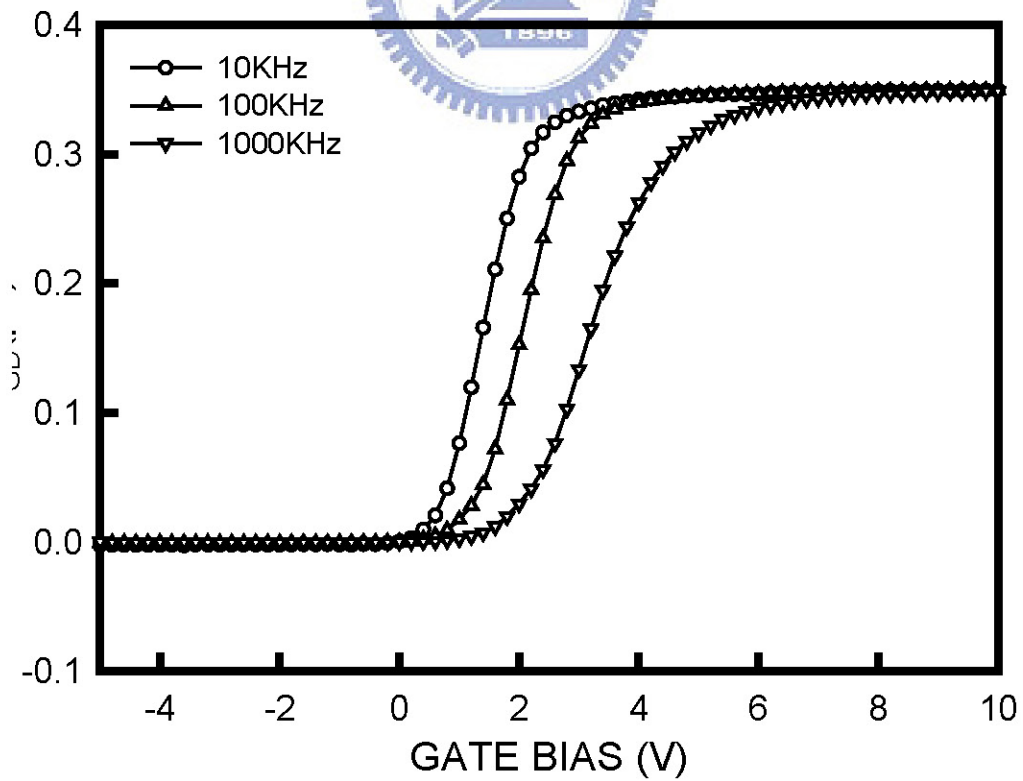


Fig. 4-1(b) the initial  $C_{GD}$ -V curves of an n-channel ELA TFT without LDD at different measurement frequency

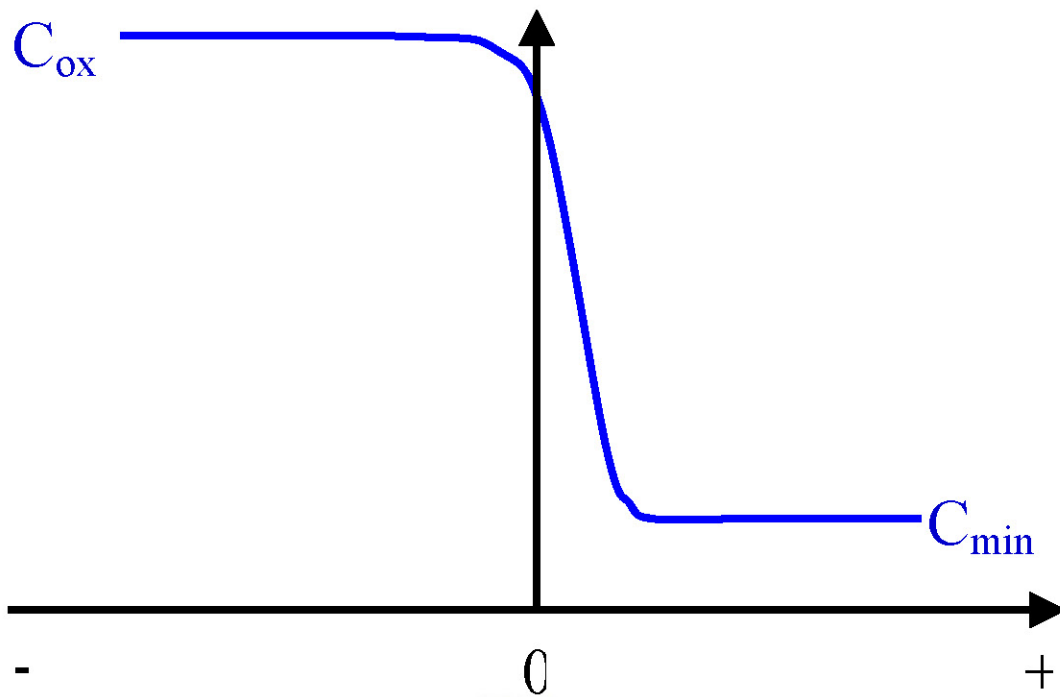


Fig. 4-2(a) a conventional p-Si metal-oxide-semiconductor capacitor capacitance-voltage curve

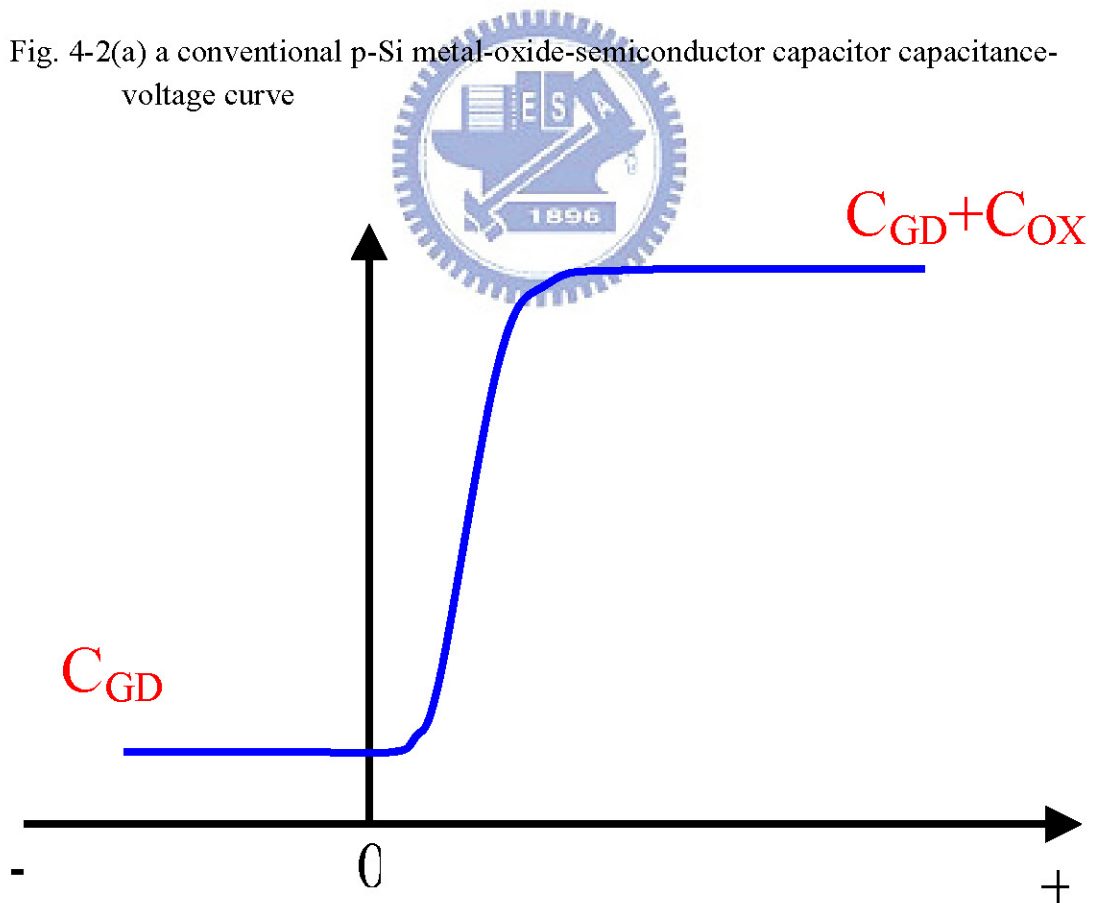


Fig. 4-2(b) a typical polycrystalline silicon thin film transistor gate-drain capacitance-voltage curve in our experiment

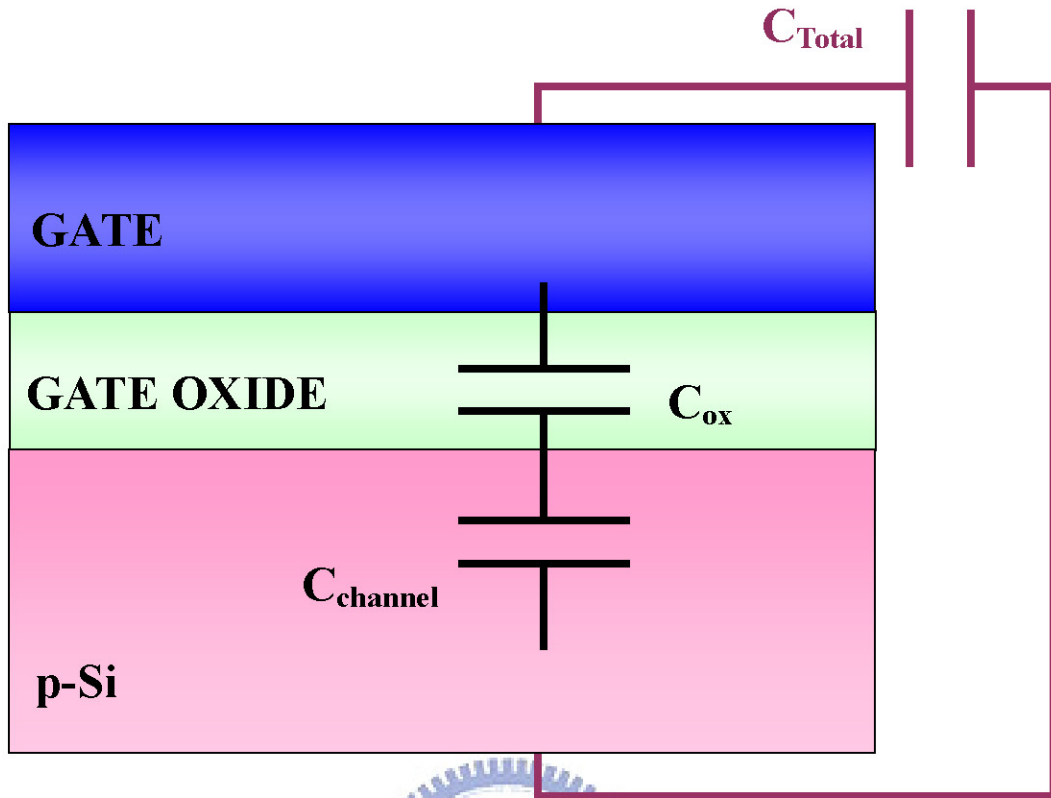


Fig. 4-3(a) a equivalent total capacitance circuit of metal-oxide-semiconductor capacitor

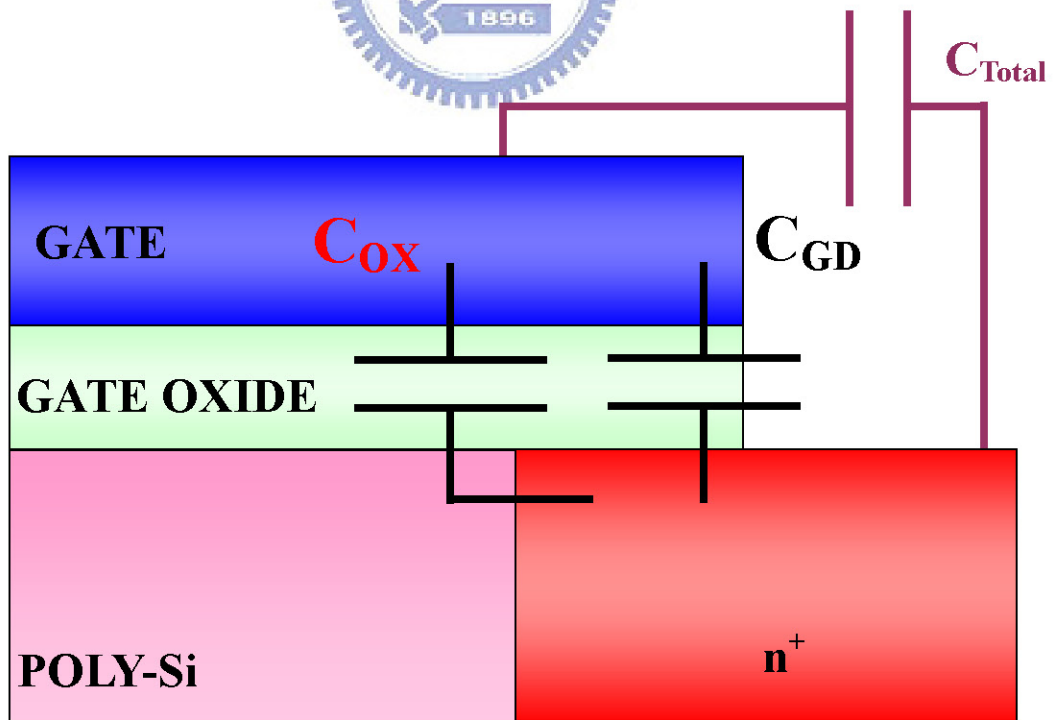


Fig. 4-3(b) a equivalent total capacitance circuit of polycrystalline silicon thin film transistor

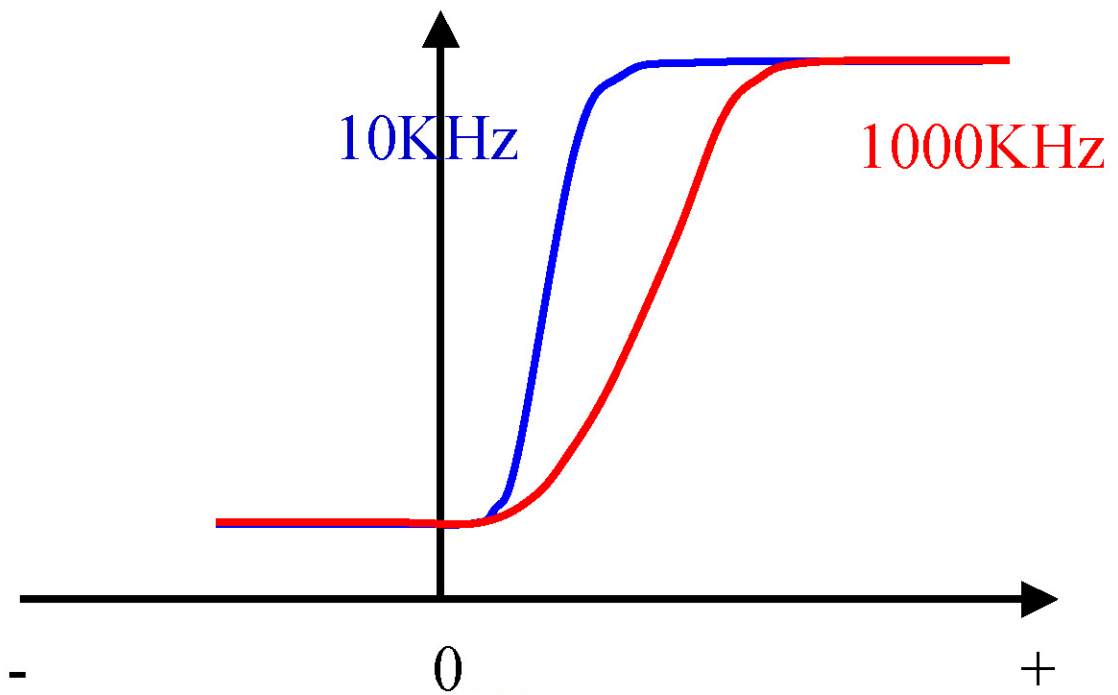


Fig. 4-4 A diagram of that with increasing the measurement frequency, the capacitance-voltage curve is degraded.

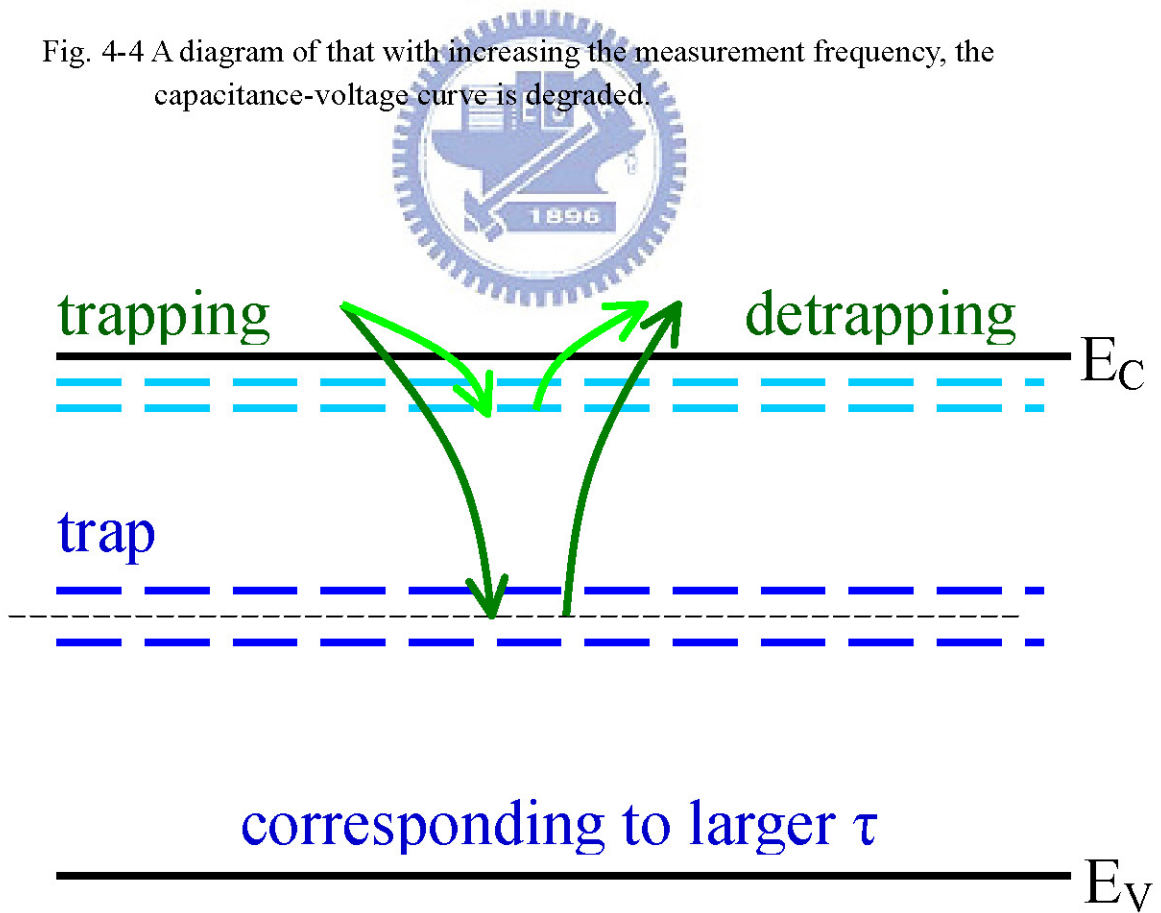


Fig. 4-5(a) When the measurement frequency is lower, deep state corresponds to larger emission time  $\tau$ .

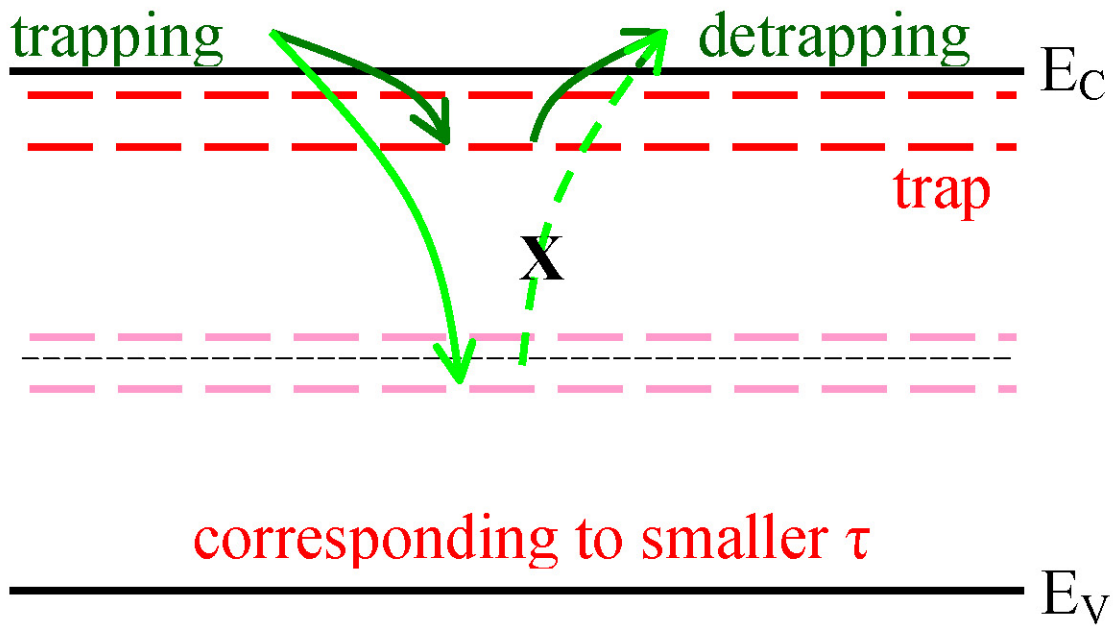


Fig. 4-5(b) When the measurement frequency is higher, tail state corresponds to smaller emission time  $\tau$ .

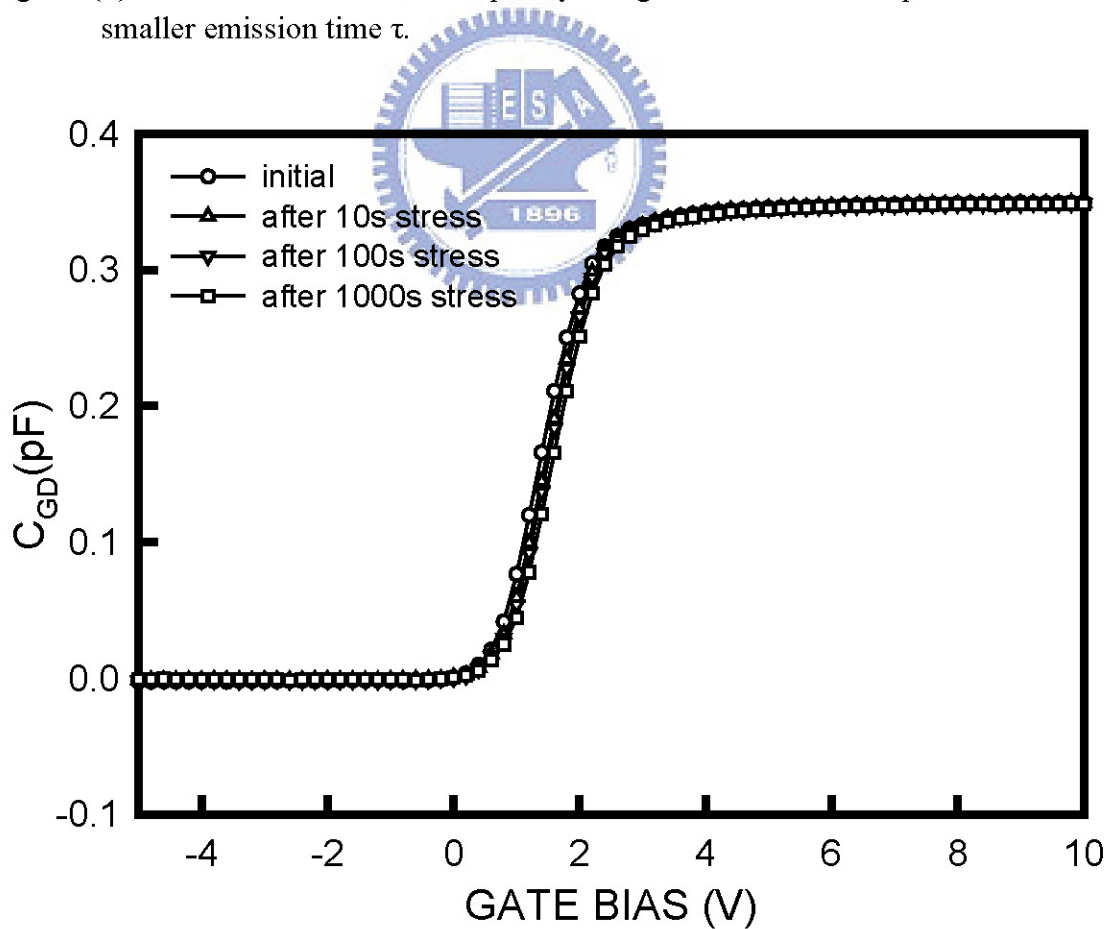


Fig. 4-6(a) The  $C_{GD}$ -V curves of n-channel poly-Si ELA TFT without LDD at the 10KHz measurement frequency