Accumulation Region

- $C_{acc} = 2C_{ovlap} + 2C_{fri} + C_{offse}/W$

Inversion Region

- $C_{inv} = C_{gate} + 2C_{fri} + C_{offse}/W$

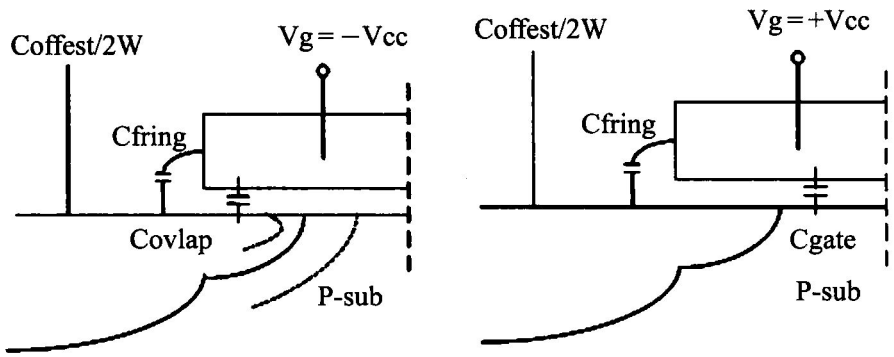

圖 13-44 分別於 accumulation 和 inversion 模式量測電容。

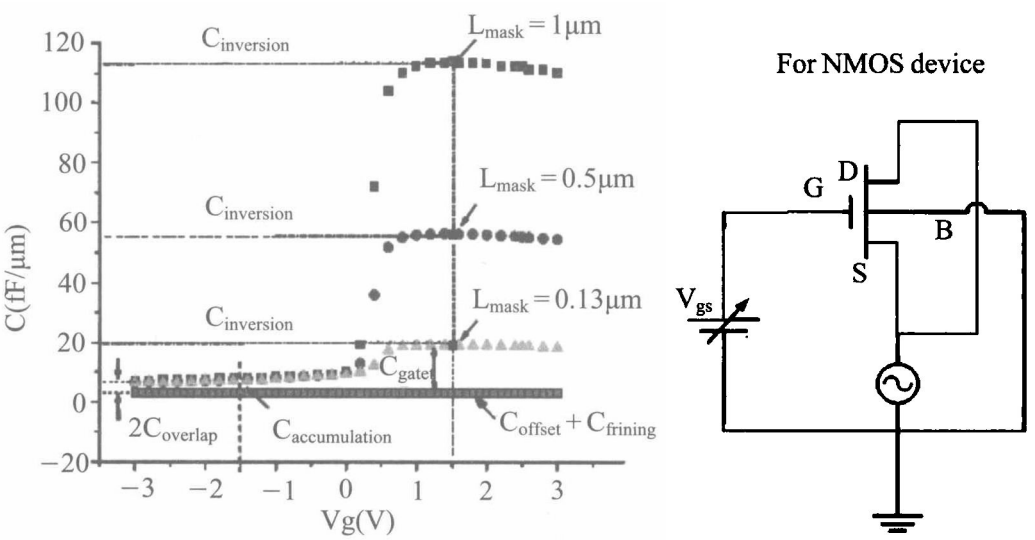

圖 13-45 利用電容法求 Leff 的量測結果。

$$C_{inv1} = C_{gate1} + 2C_{fri1} + C_{offset1}/W$$

$$C_{inv2} = C_{gate2} + 2C_{fri2} + C_{offset2}/W$$

$$C_{fri} = \frac{2\varepsilon_{ox}}{\pi} \ln\left[1 + \left(\frac{d_{gate}}{d_{ox,eff}}\right)\right]$$