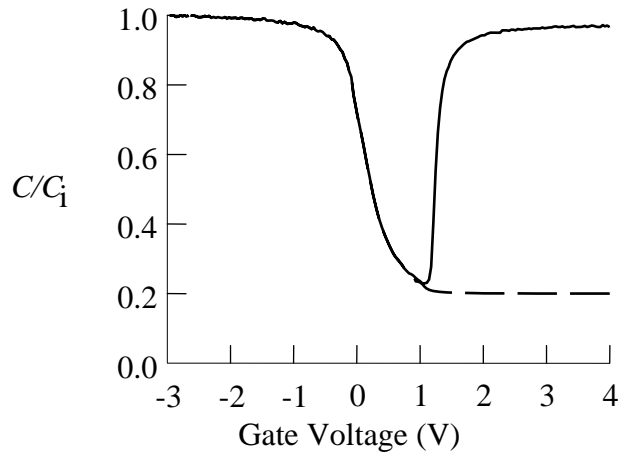


Problem A C-V curve for a MOS-capacitor is shown as the following. The area of the capacitor is 10^{-4} cm^2 . Assume room temperature. Given $C_i = 3.45 \times 10^{-8} \text{ F/cm}^2$.



- What type is this semiconductor?
- Through the value of C_{\min}/C_i , find W_m
- If this is an ideal MOS capacitor, assume the carrier concentration is found to be $2 \times 10^{15} \text{ cm}^{-3}$, what are the values of C_{FB} (in F/cm^2) and V_{FB} (read from figure, not by calculation)?