

Lecture 11: MOS Transistor

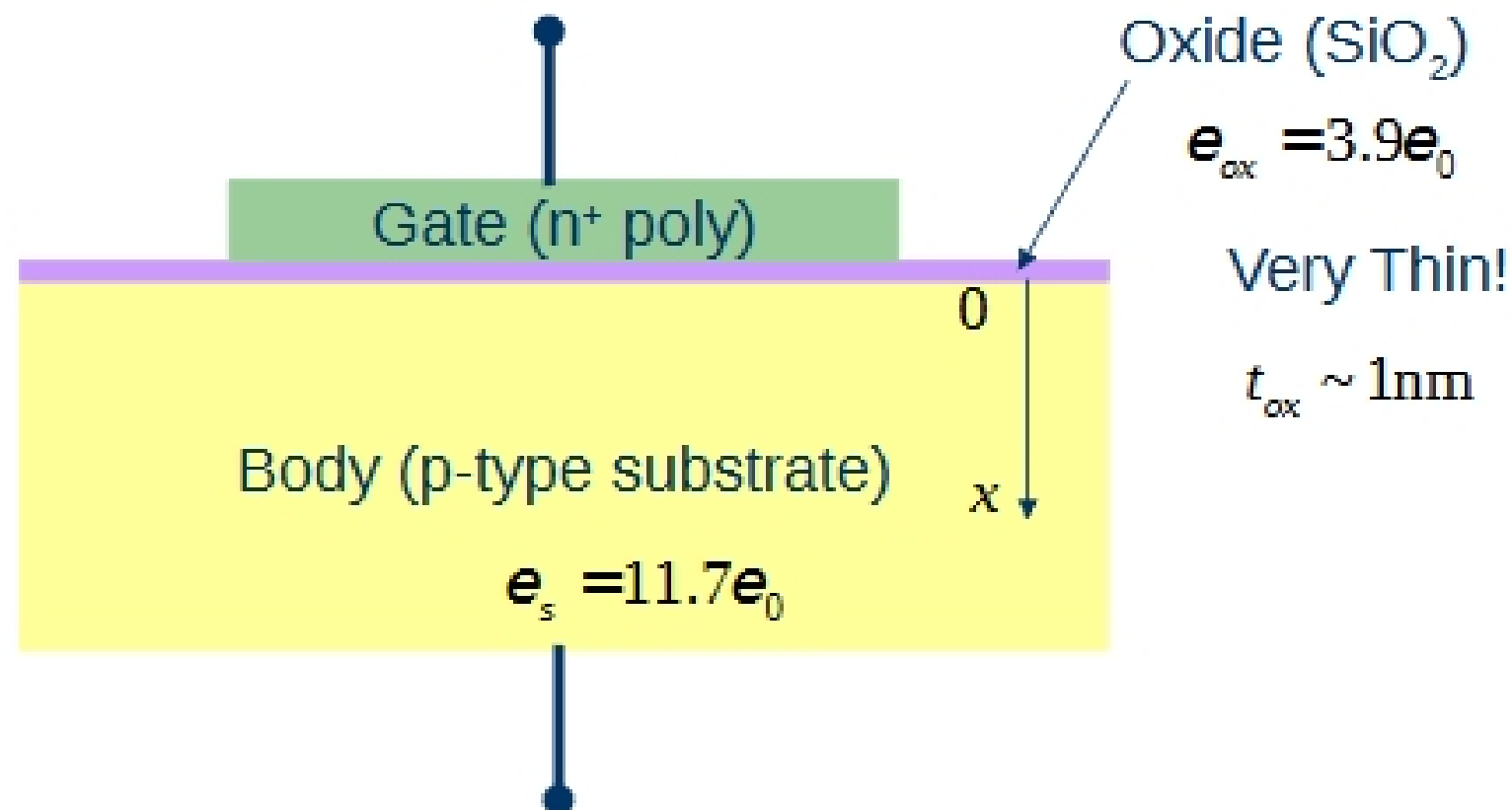
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Lecture Outline

- Review: MOS Capacitors Regions
- MOS Capacitors (3.8 – 3.9)
 - CV Curve
 - Threshold Voltage
- MOS Transistors (4.1 – 4.3):
 - Overview
 - Cross-section and layout
 - I-V Curve

MOS Capacitor



- MOS = Metal Oxide Silicon
- Sandwich of conductors separated by an insulator
- “Metal” is more commonly a heavily doped polysilicon layer n^+ or p^+ layer
- NMOS \rightarrow p-type substrate, PMOS \rightarrow n-type substrate